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1  
IN THE CIRCUIT COURT, FOURTH  
JUDICIAL CIRCUIT, IN AND FOR  
DUVAL COUNTY, FLORIDA

CASE NO.: 00-02790-CA  
DIVISION: CV-B

MICHAEL L. McMULLIN and  
KELLI McMULLIN,  
Plaintiffs,

vs.

U.S. SMOKELESS TOBACCO COMPANY,  
Defendant

\*\*\*\*\*

ORAL AND VIDEOTAPED DEPOSITION OF

CARL PHILLIPS, Ph.D.

SEPTEMBER 26, 2002

\*\*\*\*\*

Deposition of CARL PHILLIPS, Ph.D. taken on the  
26th day of September, 2002, beginning at 1:57 p.m.,  
in the offices of Skadden, Arps, Slate, Meagher &  
Flom, LLP, 1600 Smith Street, Suite 4400, Houston,  
Texas 77002, before Elaine P. Maspero, RPR,  
Certified Shorthand Reporter and Notary Public in  
Harris County, for the State of Texas, pursuant to  
the Florida Rules of Civil Procedure.

**ORIGINAL**

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A P P E A R A N C E S

## FOR THE PLAINTIFFS:

Mr. Robert F. Spohrer  
Florida Bar No. 0184500  
Spohrer Wilner Maxwell & Matthews, PA  
701 West Adams Street, Suite 2  
Jacksonville, Florida 32204  
904/354-8310

## FOR THE DEFENDANT:

Mr. Richard T. Bernardo  
Skadden Arps Slate Meagher & Flom, LLP  
Four Times Square  
New York, New York 10036-6522  
212/753-3000

-and-

Mr. Jonathan R. Kuhlman  
Jacob, Medinger & Finnegan  
1270 Avenue of the Americas  
New York, NY 10020  
212/332-7700

## ALSO PRESENT:

Mr. Charles Levin, Videographer

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01:57 1 THE VIDEOGRAPHER: Time is 1:57 p.m.,  
2 we're on the record.

3  
4 CARL PHILLIPS, Ph.D.,  
5 having been first duly sworn, testified as follows:  
6

7 EXAMINATION

8 BY MR. SPOHRER:

9 Q. Sir, could I have your full name, please?

01:57 10 A. Carl Phillips.

11 Q. What is your profession or occupation?

12 A. I am a professor of public health. I'm an  
13 epidemiologist, policy analyst and economist.

14 Q. And where do you work?

01:57 15 A. At the University of Texas School of  
16 Public Health at the UT Houston campus.

17 Q. What is epidemiology, sir?

18 A. Epidemiology is the use of quantitative  
19 information to study the relationship of exposure  
01:58 20 and disease in humans.

21 Q. Okay. What diseases have you studied in  
22 your career?

23 A. I've looked at quite a few different  
24 diseases in various things that I have done.

01:58 25 Q. Okay. Could you give us some examples?

01:58 1 A. I have looked at heart disease. I have<sup>5</sup>  
2 looked at cancers of various sites. I have done  
3 some work that had to do with stroke. I have done  
4 some work that had to do with fetal maternal  
01:58 5 health. Probably could keep going. I have looked  
6 at Type II diabetes. I have looked a little bit at  
7 injury, a couple of different kinds.

8 How long would you like me to keep trying  
9 to list?

01:59 10 Q. That's fine. You seem to be slowing down  
11 so we'll ask you something else.

12 In regard to your studies of those various  
13 diseases or disease processes when you say you study  
14 them as an epidemiologist, does that mean you try to  
01:59 15 ascertain causes for those diseases?

16 A. I did various things with various topics.  
17 I could go into greater detail with what I did with  
18 any one of them.

19 Sometimes it had to do with etiology,  
01:59 20 which is a fancy word for causes of disease.  
21 Sometimes it didn't focus so much on etiology.

22 Q. Okay. Which of these or other diseases  
23 did you study the causes?

24 A. Well, in all cases it would of course have  
02:00 25 to be some causes or certain causes rather than all

02:00 1 causes. Very seldom that somebody sets out to study  
2 all the causes of a disease and I can't claim to  
3 have made a specialization of all the causes of a  
4 disease.

02:00 5 So for example, recent work I have done,  
6 obviously, the study of smokeless tobacco and oral  
7 cancer that we are here to discuss. I have looked  
8 at some of the material that relates to recent  
9 claims that the pharmaceutical phenylpropanolamine  
02:00 10 causes stroke in young women. I have a couple of  
11 current papers that deal with that.

12 A while ago when I was in graduate school  
13 I looked at the relationship between moderate  
14 alcohol consumption and the risk of heart attack.

02:01 15 Q. Okay. What is the product that you spoke  
16 about with young women and stroke?

17 A. It's called phenylpropanolamine. It's  
18 p-h-e-n-y-l, propanol, p-r-o-p-a-n-o-l, amine,  
19 a-m-i-n-e. Sorry. I usually trust my spell checker  
02:01 20 to take care of that for me.

21 Q. And is there a consumer name for that  
22 product?

23 A. It was -- it was an ingredient in a lot of  
24 different products. Contac cold medicine was one of  
02:01 25 them. Alka Seltzer Plus Cold medicine contained

02:01 1 it. Quite a few others. I couldn't list them all.<sup>7</sup>  
2 Q. What did you conclude with respect to the  
3 association of that compound and strokes in young  
4 women?  
02:02 5 A. Well, I should clarify. My work on that  
6 had to do with -- was in reaction to somebody else's  
7 study finding. In particular, there was a paper by  
8 Curran et al, a lead author out of Yale, that was  
9 front page -- literally front page of the New York  
02:02 10 Times for several days after it came out about, I  
11 guess it's coming up on two years ago.  
12 And this one study had a rather dramatic  
13 impact resulting in the ingredient being pulled out  
14 of pharmaceuticals, pulled off the over-the-counter  
02:02 15 market. And as a result, it is what I characterize  
16 to be the most significant epidemiologic, sorry,  
17 most significant impact of an epidemiologic study of  
18 late and, therefore, it's an interesting study.  
19 I didn't do field research on that. What  
02:03 20 I did was research in response to the field research  
21 that others had conducted.  
22 Q. Did you concur with the findings of the  
23 initial researchers that there was an association  
24 between that compound and strokes in young women?  
02:03 25 A. One of the things that I have done in

02:03 1 looking at that at is use it as an example of what  
2 I've described as high stakes epidemiology. That  
3 is, a study that is likely to produce a fairly  
4 important result for the world. And the main  
02:03 5 message in my work on this topic is that high stakes  
6 epidemiology calls for great care, great attention  
7 to uncertainty, possible sources of bias and so  
8 forth. And I have pointed out ways in which  
9 relatively plausible levels of bias would have led  
02:03 10 to much less confidence in the result than was  
11 implied by the headlines, the press releases and so  
12 forth.

13 Q. Were you hired by any organization to do  
14 that work?

02:04 15 A. No.

16 Q. With respect to high stakes epidemiology,  
17 is that what you would characterize your work in  
18 this case?

19 A. When I talk about high stakes  
02:04 20 epidemiology, I'm usually focusing on major impact  
21 of a single study and how the authors and others  
22 involved with it ought to be careful about how they  
23 consider possible error and uncertainty and so  
24 forth.

02:04 25 In this case I came to this literature



02:04 1 after there was a substantial body of literature.<sup>9</sup>  
2 And so it's kind of a different circumstance.  
3 Q. Okay. You came to this issue -- we're  
4 talking about the issue of the McMullin case. Is  
5 that correct?  
6 A. Yes.  
7 Q. And you came to this issue not through  
8 intellectual interest but through being hired by  
9 U.S. Smokeless Tobacco Company. Correct?  
02:05 10 MR. BERNARDO: Objection to form.  
11 A. I find it a very interesting literature  
12 and case. I came to it because I was hired.  
13 Q. (BY MR. SPOHRER) Okay. And is this the  
14 first time you have done work on behalf of a tobacco  
02:05 15 company?  
16 A. Yes.  
17 Q. How much have you been paid for your work  
18 on this case?  
19 A. To date I believe in the order of  
02:05 20 \$20,000.  
21 Q. Is that a possible source of bias as you  
22 used the term previously?  
23 A. No, that's not actually related to the use  
24 of bias that I was -- that I used previously.  
02:05 25 Q. Okay. How did you use the term "bias"

02:05 1 when you referred to it earlier?

2 A. I was referring to concepts sometimes  
3 called systematic error. That's a synonym. Both of  
4 those are terms of art in epidemiology referring to  
02:06 5 possible ways in which the observed effect measure,  
6 something like an odds ratio and so forth, might  
7 deviate from a true underlying causal relationship.

8 The word "bias" or "systematic error" is  
9 typically used to draw contrast versus look, it's  
02:06 10 called random error or random sampling error, which  
11 has different properties.

12 Q. So you are using the term "bias" as a term  
13 of art for statisticians?

14 A. When I used it before, yes, every time  
02:06 15 I've used it in this conversation I've used it way.

16 Q. Have you written any papers in which you  
17 have found an association between any substances and  
18 any of the disease processes that you have been  
19 studying?

02:07 20 A. I'm not sure I understand the question.

21 Q. Okay. We discussed earlier that you have  
22 done work at various times on heart disease, cancer,  
23 the different types, stroke, fetal maternal health,  
24 Type II diabetes, et cetera. Has any of your work  
02:07 25 in those areas resulted in a finding on your part

02:07 1 that there is an epidemiological association between<sup>11</sup>  
2 any particular compounds or behaviors or substances  
3 and those disease processes?

4 MR. BERNARDO: Objection to form.

02:07 5 A. Well, I should clarify that the  
6 epidemiology I do -- again I'm not quite sure I  
7 understand your question -- but the epidemiology I  
8 do is not what gets called field epidemiology. And  
9 most of the time when somebody uses the phrase  
02:07 10 "found something," it refers to the result of a  
11 field study. That is, somebody went out and  
12 gathered new data and presented it.

13 I don't know if that's what you meant, but  
14 if it was, that's not what I do. My specialty is  
02:08 15 the part of the analysis that goes from -- that  
16 starts with the data that somebody else has gathered  
17 and proceeds there through interpretation and  
18 decision making based on it.

19 Q. (BY MR. SPOHRER) Decision making as a  
02:08 20 matter of public policy?

21 A. That's one of my areas of focus, yes.

22 Q. So you don't go out and gather data from  
23 patients who are ill with Type II diabetes, for  
24 example, or heart disease?

02:09 25 A. In the case of Type II diabetes, I

02:09 1 actually did a bit of field research. I wasn't  
2 trying to say I've never done any field research.  
3 That particular case was focused on patient  
4 preferences, how patients reacted to different  
02:09 5 treatment options, how they felt about them. And I  
6 actually did sit in a clinic waiting room and  
7 administer surveys to patients. So in that  
8 particular case I did a bit of field research. I'm  
9 not sure if that answers your question.

02:09 10 Q. Sure. With that exception, though, your  
11 work is generally speaking not involved in gathering  
12 data from individual patients, for example?

13 A. That's right. There is the additional  
14 exception of paper that -- well, I'll let you decide  
02:09 15 whether this is a yes or no to your question.

16 There is a paper that I'm working on right  
17 now that one of my students invited me in on where  
18 one of her students -- yes, my student has students  
19 -- gathered some data as part of her training and  
02:09 20 this is one on fetal maternal health. So I actually  
21 have this data. So in some sense I'm pretty close  
22 to the data gathering process.

23 On the other hand, again I was brought at  
24 the level where my specialization kicks in after  
02:10 25 someone had already gathered the data and it was

02:10 1 time to try to make sense of it.

2 Q. Do you believe there is a epidemiological  
3 connection between smoking cigarettes and lung  
4 cancer?

02:10 5 A. I'm not sure what you mean by  
6 "epidemiologic connection." There is ample  
7 evidence in the epidemiology literature that  
8 associates smoking cigarettes with lung cancer, yes.

9 Q. Do you know what that SMR is?

02:10 10 A. I'm sorry?

11 Q. Are you familiar with the Standard  
12 Mortality Ratio?

13 A. To some extent.

14 Q. Do you know what that is for that disease?

02:10 15 A. Not offhand, no.

16 Q. Do you know what the relative risk is?

17 MR. BERNARDO: Object to form.

18 A. I would have to look, look something up  
19 before I felt comfortable answering that.

02:11 20 Q. (BY MR. SPOHRER) Okay. But as you sit  
21 here today, you are satisfied that smoking  
22 cigarettes is a cause of lung cancer?

23 A. Yes, I believe that.

24 Q. Okay. What is it about cigarette smoke  
02:11 25 that causes lung cancer?

02:11 1 A. Well, that's a question that's better put  
2 to a toxicologist or biochemist. I'm neither of  
3 those. I'm not an expert in carcinogenesis. I base  
4 my understanding of that relationship and my  
02:11 5 conclusion on the epidemiologic data, which doesn't  
6 contain that piece of information by its very  
7 nature.

8 Q. Well, I understand it may not be your  
9 primary focus of your research, but do you have an  
02:11 10 understanding as to what it is about tobacco that  
11 causes lung cancer?

12 MR. BERNARDO: Object to form.

13 A. I don't have a detailed enough  
14 understanding of the carcinogenic process as it  
02:12 15 relates to tobacco smoke that I would feel  
16 comfortable saying I have a professional opinion on  
17 it.

18 Q. (BY MR. SPOHRER) Okay. Are you familiar  
19 with the term nitrosamines?

02:12 20 A. Yes.

21 Q. And tobacco specific nitrosamines?

22 A. Yes.

23 Q. And do you understand that it is tobacco  
24 specific nitrosamines which are believed to be the  
02:12 25 cause of lung cancer in smokers?

02:12 1 MR. BERNARDO: Object to form.

2 A. I know there is a literature in which  
3 people have written that they believe that tobacco  
4 specific nitrosamines lead to cancer. I'm aware  
02:12 5 that that exists.

6 Q. (BY MR. SPOHRER) The products we're  
7 involved with today are spit tobacco products such  
8 as Skoal and Copenhagen. You are familiar with  
9 that. Correct?

02:12 10 MR. BERNARDO: Object to form.

11 A. Yes, I know that we're talking about snuff  
12 products which include Skoal and Copenhagen, yes.

13 Q. (BY MR. SPOHRER) Okay. Do Skoal and  
14 Copenhagen contain tobacco specific nitrosamines?

02:13 15 A. I'm no expert on this. I have never done  
16 a chemical analysis. I'm not a chemist.

17 I know that there is literature that says  
18 that, that snuff, that moist snuff products, which  
19 these are, contains those chemicals. And my  
02:13 20 knowledge of that is simply based on having read it  
21 in the sources that I just described.

22 Q. Okay. Well, do you have any reason to  
23 doubt that the same tobacco specific nitrosamines  
24 which are in both cigarettes and spit tobacco are  
02:13 25 carcinogenic when put in the mouth instead of

02:13 1 smoked?

2 MR. BERNARDO: Object to form.

3 A. Do I have any reason to doubt? I actually  
4 -- I don't understand the basis of several claims  
02:14 5 that were implicit in that question. I'm not sure I  
6 can answer it very effectively.

7 Q. (BY MR. SPOHRER) Okay. Fair enough.

8 Do you believe there are any adverse  
9 health effects from use of spit tobacco?

02:14 10 A. My expertise in this matter has really  
11 focused on one particular potential adverse health  
12 effect, which is cancer of the mouth. And my review  
13 of the literature shows that there is not evidence  
14 in this epidemiologic literature supporting the  
02:14 15 claim that snuff leads to oral cancer.

16 Q. So it is your opinion to be expressed at  
17 the trial of this case that the use of moist  
18 smokeless tobacco or spit tobacco such as Skoal and  
19 Copenhagen does not lead to any cancers of the  
02:15 20 mouth?

21 MR. BERNARDO: Object to form.

22 Q. (BY MR. SPOHRER) Do I understand that to  
23 be your testimony?

24 A. The material that I studied relates to the  
02:15 25 specific cancer sites of the mouth and with an



02:15 1 emphasis on the tongue.

2 And my conclusion based on that literature  
3 is that there is no evidence that these products  
4 lead to cancer of the tongue.

02:15 5 In fact, there is a fair amount of  
6 evidence pointing to the conclusion that they do not  
7 lead to cancer of the tongue. Further, there is --  
8 the epidemiologic evidence does not establish that  
9 there is any link to oral cancer more generally.

02:15 10 I believe you asked about cancer as a  
11 broad category of many different diseases at many  
12 different sites and I can't really speak to that.  
13 My review of the literature has focused on these  
14 particular sites.

02:16 15 Q. Okay. So do you believe that the use of  
16 spit tobacco has any adverse health effects for the  
17 user?

18 MR. BERNARDO: Object to form.

19 A. The material that I have studied, which  
02:16 20 again is focused on those particular cancers and has  
21 had, you know, has perhaps occasionally mentioned  
22 other illnesses has not presented a picture to me of  
23 any specific morbidity state that results from this  
24 exposure.

02:16 25 However, I can't conclude from not having

02:16 1 seen it that it's not there. I haven't sat out to 18  
2 make a general study of all possible health  
3 consequences of this exposure.

4 Q. (BY MR. SPOHRER) What did you set out to  
5 do?

6 A. I set out to form an opinion about whether  
7 smokeless tobacco is -- has a causal association  
8 with oral cancer in general and with tongue cancer  
9 in specific.

02:17 10 Q. Okay. And you concluded that it does not?  
11 A. I have concluded that, again with respect  
12 to tongue cancer, there is no evidence that it  
13 does. And furthermore, there is evidence that  
14 supports the claim that there is no causal  
02:17 15 association.

16 With respect to oral cancer more  
17 generally, the body of evidence, the weight of  
18 evidence, epidemiologic evidence -- I should clarify  
19 that's what I'm talking about when I talk about the  
02:17 20 literature I've read. The epidemiologic evidence  
21 taken as a whole does not support the conclusion  
22 that there is a causal relationship with oral  
23 cancer.

24 Q. In general?

02:18 25 A. In general.

02:18 1 Q. Okay. What about other health effects  
2 such as gingival recession, gum disease, anything  
3 like that?

4 MR. BERNARDO: Object to form.

02:18 5 A. I haven't set out to form an opinion about  
6 those relationships. I have seen mention of them,  
7 of course, in the literature that I have reviewed.  
8 I haven't studied it in a way that would allow me to  
9 draw a conclusion one way or another.

02:18 10 Q. (BY MR. SPOHRER) Okay. As part of your  
11 work in this case, you have reviewed the reports of  
12 the Surgeon General of the United States?

13 A. The 1986 Surgeon General's report on this  
14 topic, yes.

02:18 15 Q. Is that the only one you have read?

16 A. I believe so. I have looked at another  
17 NIH work that came out in the early '90s, I believe,  
18 but I don't think that was considered a Surgeon  
19 General's report.

02:19 20 Q. Okay. Have you read the 2000 report on  
21 oral health in America from the Surgeon General?

22 A. No, I have not read that.

23 Q. Do you know that the reports of the U.S.  
24 Public Health Service and the Surgeon General are  
02:19 25 based upon advisory committees made up of

02:19 1 internationally prominent physicians and  
2 scientists?

3 MR. BERNARDO: Object to form.

4 A. I know that these reports are prepared by  
02:19 5 panels of scientists, yes.

6 Q. (BY MR. SPOHRER) Do you know some of  
7 those scientists?

8 A. It would depend on the report.

9 Q. In going through this material and  
02:19 10 preparing for your testimony in this case, did you  
11 read through the list of physicians and scientists  
12 who participated in the reports?

13 A. Yes.

14 Q. Okay. Did you know any of them?

02:19 15 A. Yes.

16 Q. How many of them did you know?

17 A. I didn't attempt to memorize that number.  
18 I'm not -- could not give you an answer.

19 Q. Did you know a significant number of  
02:20 20 them?

21 MR. BERNARDO: Object to form.

22 A. I don't know what you mean by "significant  
23 number." Again, if you showed me the list, I could  
24 count or I could tell you which specific ones, but I  
02:20 25 simply didn't try to memorize the list.

02:20 1 Q. (BY MR. SPOHRER) Let me ask you this. <sup>21</sup> Do  
2 you have any reason to question the intellectual  
3 integrity or the scientific integrity of the men and  
4 women who have advised the National Institutes of  
02:20 5 Health on the health effects of oral tobacco?

6 MR. BERNARDO: Object to form.

7 A. Well, I'm not sure how I could comment on  
8 the intellectual integrity of people, most of whom I  
9 haven't met. So I really can't answer that.

02:20 10 Q. (BY MR. SPOHRER) Well, of the people on  
11 the list who you did know, did you have any reason  
12 to doubt their integrity?

13 A. I guess I don't really quite understand  
14 what you are getting at in terms of doubting their  
02:21 15 integrity.

16 Q. Well, let's start with their ability. Are  
17 these men and women who have the ability to make the  
18 scientific and medical judgments which are embodied  
19 in the reports of the Surgeon General?

02:21 20 A. Well, that would depend on who you are  
21 talking about and which report. This is getting,  
22 getting a little abstract. If you have -- if there  
23 is a specific individual that you are interested in  
24 and a specific finding, I could try to comment on  
02:21 25 what I know about their expertise, but I'm not sure

02:21 1 what I can do with the general question when you are  
2 asking about all of them and all of the information  
3 contained in the report.

4 Q. Well, let's just -- let's broaden it  
02:21 5 rather than narrow it and ask you if you believe  
6 that the Surgeon General of the United States has  
7 any interest other than learning the science and  
8 medicine as it relates to this product and  
9 disseminating that information to the people of the  
02:22 10 United States?

11 MR. BERNARDO: Objection to form.

12 A. I'm really no expert in the motives of the  
13 Surgeon General. That would be a better call for a  
14 political historian, I suppose.

02:22 15 Q. (BY MR. SPOHRER) Do you -- when you read  
16 the reports, obviously, you disagree with the  
17 conclusion of the Surgeon General's reports that the  
18 use of oral tobacco is associated with cancer of the  
19 mouth?

02:22 20 MR. BERNARDO: Object to form.

21 Q. (BY MR. SPOHRER) Do you disagree with  
22 that?

23 A. Well, you are referring to reports in the  
24 plural. As I mentioned, I had reviewed the 1986  
02:22 25 report.

02:22 1 The important thing to keep in mind when  
2 you are talking about that report is that it was  
3 written in 1986, perhaps part in 1985, based on the  
4 knowledge base that existed then. By which I mean  
02:23 5 the information about oral cancer and smokeless  
6 tobacco that existed then and about the scientific  
7 knowledge and methodology of epidemiology as it  
8 existed then.

9 And while it may not sound all that long  
02:23 10 ago that this was done say 17, 16 years ago,  
11 epidemiology is a relatively young field and there  
12 have been substantial advances since then. The  
13 total body of research on the topic at hand has more  
14 than doubled since that time.

02:23 15 So when I reach a conclusion based on more  
16 modern epidemiology and a better collection of data  
17 in 2002, I'm not the inclined to jump up and say, I  
18 disagree, somebody was wrong, but rather, to say  
19 that this is the best that I can conclude here and  
02:24 20 now with what I have to work with.

21 And I have no idea what conclusion I would  
22 have reached in 1986 given the limitations of trying  
23 to draw a conclusion then. And so to say whether a  
24 disagreement or not is I think a little difficult  
02:24 25 for me.

02:24 1 Q. Let's be specific then.  
2 Do you want some more coffee?

3 A. Please.

4 Q. Maybe Mr. Bernardo?

02:24 5 A. I'm sorry.

6 MR. BERNARDO: Why don't we go off  
7 the record just a minute.

8 THE VIDEOGRAPHER: Go off the  
9 record?

10 MR. SPOHRER: Sure.

11 THE VIDEOGRAPHER: Time is 2:25 going  
12 off the record.

13 (Pause from 2:25 to 2:26 p.m.)

14 THE VIDEOGRAPHER: Time is 2:26,  
02:26 15 we're on the record.

16 Q. (BY MR. SPOHRER) Doctor, during the break  
17 I pulled your copy of the 1986 report of the Surgeon  
18 General on the health consequences of using  
19 smokeless tobacco. And turning to page Roman  
02:26 20 numeral X is a list of the acknowledgments of the  
21 men and women who contributed to this report with  
22 regard to carcinogenesis or development of cancer.  
23 So you can take a look at those. They are on the  
24 left hand page.

02:26 25 A. Okay.



02:26 1 Q. Now that you have had a chance to look at  
2 those, first of all, do you know any of those  
3 people?

4 A. The, I guess I have met two of them  
02:26 5 personally and I am generally aware of one other.

6 Q. Who do you know know personally? Who have  
7 you met?

8 A. Well, one of them who I met personally but  
9 it isn't actually terribly relevant to this is Steve  
02:27 10 Tannenbaum who I happened to meet through social  
11 connections when I was living in Massachusetts and  
12 have never had a technical discussion with him but  
13 I've met him.

14 Ken Rothman is an epidemiologist who's now  
02:27 15 at Boston who I had the opportunity to sit down with  
16 and talk to for a few hours a year and a half ago or  
17 so, maybe two years ago.

18 Q. Dr. Dietrich Hoffman, do you know him?

19 A. No, I don't.

02:27 20 Q. Looking at the list of those people, do  
21 you have any reason to doubt the scientific  
22 integrity of those people?

23 MR. BERNARDO: Objection as to form.

24 A. I don't really have a strong reason to  
02:27 25 form a conclusion one way or another, other than

02:27 1 what you might conclude about any name on a page.

2 Q. (BY MR. SPOHRER) Well, I mean do you  
3 believe that these are men and women motivated by  
4 anything other than trying to learn the scientific  
02:28 5 truth and report on it to the government?

6 MR. BERNARDO: Object to form. Bob,  
7 you can ask a question, but you can't ask the same  
8 one 12 times. He can answer it, but --

9 MR. SPOHRER: I think I can until I  
02:28 10 get an answer.

11 MR. BERNARDO: I think he's answered  
12 several times he doesn't know these people. He  
13 can't form an opinion about people he doesn't know.  
14 You can ask him the same question many more times,  
02:28 15 but you will probably get the same answer, but go  
16 ahead.

17 A. I'm sorry. What was the question?

18 Q. (BY MR. SPOHRER) Do you believe that  
19 these people are biased in their reporting?

02:28 20 MR. BERNARDO: Object to form.

21 A. Well, we had a discussion about exactly  
22 what bias means before and I realize --

23 Q. I'm using it in your term. I'm using it  
24 in the sense of bias meaning these people have some  
02:28 25 motivation to report on something other than the

02:28 1 truth as they believe it to exist?

2 MR. BERNARDO: Same objection.

3 A. I can't comment on either their motives or  
4 what might lead them to the truth as they believe it  
02:28 5 to exist so I really couldn't tell you.

6 Q. (BY MR. SPOHRER) Now, the boxes of  
7 material that you brought to this deposition are the  
8 materials that you reviewed in arriving at your  
9 opinions. Correct?

02:29 10 A. That's right.

11 Q. Where did you get this stuff?

12 A. From a combination of sources. Some of it  
13 was provided to me by counsel, Mr. Bernardo and --  
14 usually and others. Some of it was my own research  
02:29 15 and some of it was the research of my research  
16 assistant under my direction.

17 Q. And how much of it was provided to you by  
18 counsel for the tobacco company?

19 A. In terms of total numbers of pieces of  
02:29 20 paper, which is the only way I can see to answer  
21 that question, most of it.

22 I would say if you count the entire  
23 collection of material from when that would be 90  
24 percent of the total pieces of paper.

02:30 25 Q. But you were not provided with the report

02:30 1 of the Surgeon General on oral health in America  
2 dated 2000?

3 A. I have not seen that.

4 Q. Would you like to see it?

02:30 5 A. Eventually, I suppose I will read that in  
6 my life.

7 Q. Well, I mean you said earlier that the  
8 work of the Surgeon General was dated because it was  
9 1986 data or earlier. Correct?

02:30 10 A. I said that the 1986 report of the group  
11 assembled by the Surgeon General had that  
12 characteristic, yes.

13 Q. And you have not, however, seen fit to get  
14 the 2000 report or have asked counsel to provide it  
02:30 15 for you?

16 MR. BERNARDO: Object to form.

17 A. I have done research on the available  
18 literature and found what I thought would contribute  
19 to my knowledge about this topic.

02:31 20 I have had a research assistant spend many  
21 more hours even still than that to reach that  
22 conclusion. If one of us came across this document  
23 in our research, we for whatever reason chose not to  
24 -- not to add it to my file. I can't really  
02:31 25 speculate as to why without reading it.

02:31 1 If you implicitly offer to let me read it,  
2 I can sit here and read it, if you want, and then  
3 try to better tell you what it's implications are  
4 for my opinion.

02:31 5 Q. (BY MR. SPOHRER) Well, let me just read  
6 to you from page 259 of the report.

7 "Smokeless spit tobacco: These products  
8 are causally linked to oral and pharyngeal cancers.  
9 About 30 carcinogens have been found in spit tobacco  
02:31 10 including tobacco specific N-nitrosamines, benzo  
11 [alpha] pyrene and formaldehyde. Spit tobacco users  
12 have an oral cancer risk four to six times that of  
13 non-users."

14 MR. BERNARDO: Object to form. Is  
02:32 15 there a question there?

16 Q. (BY MR. SPOHRER) Do you agree with any of  
17 those statements in the 2000 report?

18 A. Where am I reading?

19 Q. The highlighted portion.

02:32 20 A. Well, it's worth, when looking at this  
21 reading, the references which you didn't read,  
22 smokeless spit tobacco are the first words as a  
23 heading, not a sentence.

24 Then it says these products are causally  
02:32 25 linked to oral and pharyngeal cancers. Then in

02:33 1 parenthesis the references are IARC 1985, Nash (sic)  
2 1986 and U.S. DHHS 1986. Nash is a paper I'm not  
3 sure I'm familiar with.

4 But the other two sources, the latter one  
02:33 5 was the 1986 report that I was just talking about.  
6 The former is a European equivalent of the same  
7 report that came out actually a year earlier and so  
8 was based on material a year earlier still.

9 And so basically, this is material from  
02:33 10 the -- as far as I can tell from looking at that  
11 sentence, that sentence is just material from the  
12 1986 report that I was already commenting on.  
13 Perhaps that's why if I came across this paper I  
14 decided it didn't actually add anything to.

02:34 15 Q. Do you see the reference to the study on  
16 the 30 carcinogens identified in spit tobacco?  
17 What's the date of that reference?

18 A. That's Hoffman and Djordjevic, I probably  
19 pronounced that wrong, 1997.

02:34 20 Q. Have you considered that work?

21 A. It has the word "carcinogen" in it.  
22 That's part of the language of the field of  
23 toxicology which looks at things somewhat  
24 differently. I may have actually seen this paper.  
02:34 25 It may actually be in my file there. I have a

02:34 1 couple of papers that those are authors of. 31 So yes,  
2 I may well have seen that paper.

3 It's important to note that if it is  
4 toxicology, as it seems to be, and I believe those  
02:34 5 individuals are toxicologists, my review of it was  
6 for purposes of gaining background information from  
7 experts in another field and was really not part of  
8 something that I felt I could derive an opinion  
9 about myself.

02:35 10 Q. So you reject or you accept the findings  
11 of Dr. Hoffman and his colleagues in 1996 that there  
12 are 30 cancer causing agents in spit tobacco?

13 MR. BERNARDO: Objection to form.

14 A. Neither of those, actually. I'm in no  
02:35 15 position to either accept or reject their  
16 conclusion.

17 Q. (BY MR. SPOHRER) Well, if we accept it  
18 since Dr. Hoffman is a an internationally famous  
19 pioneer in tobacco chemistry, what does that tell  
02:35 20 you about the carcinogenicity of spit tobacco?

21 MR. BERNARDO: Objection to form.

22 A. I don't actually know anything about  
23 whether -- what Dr. Hoffman's level of fame is in  
24 that field. Again, it's not really my field. So  
02:36 25 I'm not sure that I can answer a question that's

02:36 1 based on that characterization.

2 Q. (BY MR. SPOHRER) Do you know if there are  
3 any carcinogens in spit tobacco?

4 MR. BERNARDO: Objection to form.

02:36 5 A. Again to note whether something is a  
6 carcinogen or not is a study that comes out of the  
7 field of toxicology, that is -- which is a field  
8 where typically individual chemicals are isolated,  
9 processed in various ways, put into various  
02:36 10 solutions and then they are exposed to cell lines or  
11 animals.

12 My area of expertise is epidemiology in  
13 which I'm not so interested in what happens with an  
14 isolated chemical and a substitute for an actual  
02:36 15 human but rather, what happens when there is a real  
16 life exposure and in terms of whether an actual  
17 human gets a disease.

18 So the question of whether there are  
19 carcinogens in it or not is something that other  
02:37 20 people draw conclusions about and is something that  
21 is an intermediate step of some sort perhaps that  
22 doesn't actually show up in the science that I do.

23 Q. (BY MR. SPOHRER) You are familiar with  
24 IARC?

02:37 25 A. Yes.



02:37 1 Q. What is that?

2 A. Stands for International Agency for  
3 Research on Cancer. It's a European research,  
4 obviously, group that looks into cancer. It is in  
02:37 5 some rough sense similar to a Surgeon General or NCI  
6 type operation.

7 Q. Okay. What is the position of the IARC on  
8 spit tobacco and its safety?

9 MR. BERNARDO: Object to form.

02:37 10 A. I'm aware of the content of their 1985  
11 report. I don't know whether that represents their  
12 position in the present tense or even whether it's  
13 the right way to describe an IARC monograph as being  
14 the position of the agency. I am familiar with that  
02:38 15 document. That's all I can really say about what  
16 IARC has had to say about this matter.

17 Q. (BY MR. SPOHRER) You don't have their  
18 recent list of carcinogens?

19 MR. BERNARDO: Object to form.

02:38 20 A. No, I'm not sure quite what you are  
21 talking about, but I don't have in my possession an  
22 IARC document that lists carcinogens, no.

23 Q. (BY MR. SPOHRER) Do you have reason to  
24 question the science of the men and women who  
02:38 25 contribute to the IARC position papers?

02:38 1 MR. BERNARDO: Object to form.

2 A. I think it's similar to what I had to say  
3 about the individuals listed on this page --

4 Q. (BY MR. SPOHRER) You don't know?

02:38 5 A. -- which is that I don't -- I don't know  
6 who they are offhand, all of them. I don't know  
7 anything about some of them and I don't know enough  
8 about the others to draw conclusions like that about  
9 their -- about their psychology.

02:39 10 Q. The World Health Organization, you are  
11 familiar with that body?

12 A. Sure.

13 Q. And are you familiar with their position  
14 with respect to the hazards of using spit tobacco?

02:39 15 MR. BERNARDO: Object to form.

16 A. I don't know exactly what their position  
17 is, no.

18 Q. (BY MR. SPOHRER) Well, let me just tell  
19 you that their position is that the use of spit  
02:39 20 tobacco causes cancer of the mouth. Do you have any  
21 reason to doubt that the World Health Organization  
22 has a motivation to do anything other than try to  
23 improve the safety and the health of the people of  
24 the world?

02:39 25 MR. BERNARDO: Object to form.

02:39 1 A. I'm not quite sure what document or report  
2 that you are basing that characterization of their  
3 position on so I can't really comment on that.

4 My answer to the question is again back to  
02:40 5 my point about not being able to say much about the  
6 psychology or other motivations for these people  
7 involved. That's just simply not something I have  
8 studied, not something I know. I don't know who  
9 does know it.

02:40 10 Q. (BY MR. SPOHRER) Dr. Phillips, can you  
11 name for me one scientific or medical organization  
12 which agrees with your conclusion that the use of  
13 spit tobacco is not related to oral cancer?

14 MR. BERNARDO: Object to form.

02:40 15 A. I don't know that to be the official  
16 position of any scientific body, no.

17 Q. (BY MR. SPOHRER) So your answer is none?

18 MR. BERNARDO: Object to form.

19 That's not what he said.

02:41 20 A. I'd have to recall exactly how you phrased  
21 the question to decide if my answer is actually  
22 none.

23 Q. (BY MR. SPOHRER) I'm happy to rephrase it  
24 for you. Can you name any organizations which are  
02:41 25 composed of reputable scientists or physicians which

02:41 1 agree with you that there is no relationship between  
2 the use of spit tobacco and oral cancer?

3 MR. BERNARDO: Object to form.

4 A. I'm not, as I sit here, offhand aware of  
02:41 5 any organization that has a position -- actually, I  
6 could probably end it there.

7 I really in all honesty don't know exactly  
8 what the official position of any of these  
9 organizations that you have referred to are. I know  
02:42 10 the contents of the documents that they have  
11 published. I have not made a study of single  
12 sentence statements of, this is our position, so I  
13 actually couldn't tell you what the position of any  
14 organization is as a sound bite on this matter.

02:42 15 Q. (BY MR. SPOHRER) So you don't know -- I  
16 mean you have charged \$20,000 for your work on this  
17 case and you are unable to give me either the  
18 position of any national or international medical  
19 organization or the name of any such organization  
02:42 20 which agrees with you. You just don't know as you  
21 sit here today?

22 MR. BERNARDO: Object to form.

23 A. Could you repeat the question?

24 Q. (BY MR. SPOHRER) Sure. You have worked  
02:42 25 and billed over \$20,000 to U.S. Smokeless Tobacco

02:42 1 for your work on this case, but even after all that  
2 work, you are unable to tell me the position of any  
3 medical or scientific organization on that  
4 question? Is that what I understand you to be  
02:43 5 saying?

6 MR. BERNARDO: Same objection.

7 A. Again, you seem to be focused on single  
8 sentence sound bite type notions of an  
9 organization's position. As a scientist, I don't  
02:43 10 find those sound bites to be very useful for forming  
11 my opinion for understanding the world for how  
12 understanding how other people think.

13 If what you are trying to get at is are  
14 there a lot of people in the health community out  
02:43 15 there who think that smokeless tobacco causes oral  
16 cancer, then the answer is yes. But -- and I'm  
17 aware of that and people reach a lot of conclusions  
18 for a lot of reasons.

19 I have reached a conclusion based on the  
02:43 20 science and it's not influenced one way or another  
21 by somebody's sound bite.

22 Q. (BY MR. SPOHRER) You have reached a  
23 conclusion but not based on your science, based on  
24 your review of other people's science. Is that  
02:44 25 true?

02:44 1 MR. BERNARDO: Object to form.

2 A. Actually, it has been based on my  
3 science. As I pointed out, my science, my portion  
4 of this science is focused on the steps that take  
02:44 5 you from data to conclusions and then sometimes from  
6 conclusions to actions, although that's not  
7 particularly relevant here.

8 As I pointed out, this is not based on any  
9 of my own data gathering. I don't consider that to  
02:44 10 be a problem at all. My work here has been about  
11 interpreting the data that exists. And that is my  
12 science.

13 Q. (BY MR. SPOHRER) You are a vegetarian and  
14 have written extensively on your vegetarianism. Is  
02:45 15 that based on health concerns or other concerns?

16 A. My behavior is based primarily on other  
17 concerns. My writing has included issues relating  
18 to health as well as other things.

19 Q. Okay. Can you tell me what your  
02:45 20 recommendations would be to friends or family about  
21 their use of tobacco products in general?

22 MR. BERNARDO: Object to form.

23 A. I'm not sure that there is such a thing as  
24 tobacco products in general. So specifically --

02:45 25 Q. (BY MR. SPOHRER) Let's talk about

02:45 1 specifics then.

2 A. -- I advise people not to smoke  
3 cigarettes, but on the other hand, I'm not sure I  
4 would waste too much effort advising people not to  
02:45 5 smoke cigarettes since there is really nothing I  
6 could tell them that's not already widely known.

7 Q. How about -- I don't want to pry into your  
8 personal life, but I don't know. Are you married?  
9 Do you have children?

02:46 10 A. I'm not married and I don't have children.

11 Q. You have nieces, nephews, perhaps?

12 A. There are children I'm around.

13 Q. Young people that you are associated with?

14 A. My girlfriend has a 16 year-old son.

02:46 15 Q. Good. And that young man, does he use  
16 tobacco products?

17 A. Not to my knowledge.

18 Q. If he were to come to you and ask, Carl,  
19 I'm interested in using this product Skoal, spit  
02:46 20 tobacco, what do you think? Would you encourage his  
21 use of the product or discourage his use of the  
22 product?

23 MR. BERNARDO: Object to form.

24 A. Well, I suppose my first thought would be,  
02:46 25 I don't know if you had an opportunity to drive

02:46 1 around the roads when you are here in Houston, but  
2 about every tenth billboard is a message from  
3 someone, someone in law enforcement -- I'm not  
4 actually sure who -- with this giant message that  
02:47 5 says, if you are under 18, driving -- I forget the  
6 exact wording -- but if you are under 18 driving and  
7 have tobacco in your car, it's your license that  
8 gets smoked, which I interpret to mean there are  
9 very harsh penalties associated with underage  
02:47 10 tobacco possession in Houston.

11 That, I think, would be sufficient for me  
12 to not want him to get afoul with the law.

13 Q. (BY MR. SPOHRER) Fair enough. Let's  
14 suppose it's his 18th birthday. And he comes to you  
02:47 15 and says, Carl, same question, I'm interested in  
16 this stuff Skoal, spit tobacco. What do you think?

17 MR. BERNARDO: Same objection.

18 Q. (BY MR. SPOHRER) Would you encourage his  
19 use of it or discourage his use of it and why?

02:47 20 A. Well, there are various aspects of  
21 consuming the product. I know that he is spending  
22 my girlfriend's money, my money, I might discourage  
23 him from embarking on a consumption pattern that  
24 used money that indirectly in some sense I would be  
02:48 25 providing him. So that would be one reason for me



02:48 1 to want to discourage him.

2 Q. Any others?

3 A. Probably. I am aware that many people  
4 find it very unaesthetic to be around somebody who  
02:48 5 is using. I say aware, but I don't have much  
6 personal experience with that myself, but the social  
7 implications of it might be important.

8 Q. Anything other than the cost of it and the  
9 fact that it may be unpleasant to be around somebody  
02:48 10 like that?

11 Would you have any health concerns that  
12 you would communicate to this young man?

13 A. Based on what I know right now, having  
14 studied the relationship of oral cancer, I would be  
02:49 15 honest with him and say, I know that an awful lot of  
16 people out there believe that it causes oral cancer,  
17 but I don't think that's the case.

18 In terms of other health concerns, if we  
19 really were having this conversation and he really  
02:49 20 asked me, do you think there are other health  
21 concerns, I would have to do some research that to  
22 date I haven't done. I can't really answer that.

23 Q. Have you ever testified in a courtroom?

24 A. No.

02:49 25 Q. Have you ever given a deposition before

02:49 1 today?

2 A. No.

3 Q. Have you ever consulted in a litigation  
4 matter of any type?

02:50 5 A. Yes.

6 Q. Tell me about it, please.

7 A. Well, I have done several. My first job  
8 or my second job out of graduate school after the  
9 first time I went to graduate school was for a  
02:50 10 consulting firm called Law and Economics Consulting  
11 Group in Berkley, California which specializes in  
12 litigation support consulting. And I worked there  
13 for about three years, and so was involved in  
14 several cases. I could list as many of them as I  
02:50 15 could remember, if you want.

16 Q. Well, would I be correct in assuming those  
17 were cases involving some type of economic analysis,  
18 financial analysis of some type?

19 A. Finance played a smaller role in most of  
02:50 20 the work that I did. Finance is not really my --  
21 has never been my area of expertise.

22 Most of them had to do with trade  
23 practices, antitrust. I suppose you might call that  
24 finance. There were a few others that dealt with  
02:51 25 other matters. Basically, they all dealt with

02:51 1 economics in one form or another as you surmised.

2 Q. Let's put those aside and tell me what  
3 other forensic experiences you have had.

4 A. Forensic?

02:51 5 MR. BERNARDO: Objection.

6 Q. (BY MR. SPOHRER) Relating to litigation  
7 matters.

8 A. Okay. When I went back to graduate  
9 school, I did a few consulting projects in  
02:51 10 conjunction with my adviser at school. One of the  
11 projects that we worked on, we had a very small role  
12 in the litigation surrounding the Exxon Valdez  
13 spill. So I guess that was litigation.

14 Q. That was on behalf of whom?

02:51 15 A. That was roughly, roughly speaking on  
16 behalf of Exxon. We were working for -- as far as I  
17 I could tell, we were working for people who were  
18 working for people who were working for Exxon. I  
19 wasn't exactly privy to the exact details of that.

02:52 20 Q. Would it be a simplification of what you  
21 did that you were involved in the calculation of the  
22 damages of the cleanup, the spill, that type of  
23 thing?

24 A. It was related to that. It had more to do  
02:52 25 with talking about the methods by which the

02:52 1 calculation was done rather than actually doing the  
2 calculation, but yes.

3 Q. Okay. What other cases?

4 A. I worked after graduation, I believe this  
02:52 5 was mostly during my post doc, I worked on a case  
6 where a hospital phlebotomist contract HIV as a  
7 result of a needle stick and she was suing the  
8 device manufacturer.

9 Q. Okay. What was your role in that?

02:53 10 A. I was working for plaintiff's counsel as,  
11 I think you call it, a consulting expert, not a  
12 testifying expert.

13 Q. Calculating the risk of her contracting?

14 A. It involved calculating the, right, the  
02:53 15 aggregate risk of someone getting a needle stick,  
16 getting this disease as a result, how many of these  
17 products were sold, what the chances that somebody  
18 is going to have this experience are given that,  
19 that type of analysis, yes.

02:53 20 Q. Okay. Any other cases?

21 A. I had a small involvement -- again this  
22 was a few years ago -- in a case having to do with  
23 -- I don't know what you would call it, racism, I  
24 suppose, an allegation of racism against an  
02:54 25 insurance company in writing policies.

02:54 1 Q. What was the insurance company?

2 A. I believe it was Nationwide.

3 Q. And in writing life insurance policies?

4 A. It was -- the piece of statistical

02:54 5 analysis that I did actually had to do with, I  
6 believe, homeowners' insurance policies. I think  
7 there might have been allegations that had to do  
8 with other insurance instruments too, but that  
9 wasn't my role in it.

02:54 10 Q. You were working on behalf of Nationwide  
11 Insurance?

12 A. I believe I was working for their  
13 underwriter. Again, I was working for lawyers and I  
14 believe they were actually working for the liability  
02:55 15 insurer of Nationwide rather than Nationwide. I  
16 won't swear to that.

17 Q. Okay. But it was your work in general --  
18 again this is an over-simplification -- that you  
19 were doing a statistical or a mathematical analysis  
02:55 20 as to whether or not the company, in fact, had been  
21 using race as a determinant for writing homeowners'  
22 policies?

23 MR. BERNARDO: Objection to form.

24 A. My role was, yes, in the form of  
02:55 25 statistical analysis looking at data trying to make

02:55 1 sense of data on behalf of somebody related to the  
2 defendant with respect to that allegation, yes.

3 Q. (BY MR. SPOHRER) Would it be fair to say  
4 that you concluded from your analysis that they were  
02:55 5 not using race in writing those policies?

6 MR. BERNARDO: Objection to form.

7 A. Actually, I don't recall that my role  
8 called for a conclusion and to my recollection, I  
9 don't think I offered one. I did the analysis. I  
02:56 10 reported what the numbers showed to them.

11 Q. (BY MR. SPOHRER) Any other litigation?

12 A. I'm trying -- recalling offhand, I think  
13 that's all of the litigation consulting that I have  
14 been involved in. Again, pointing out that the law  
02:56 15 and economics role was numerous cases and so that  
16 plus the specific ones that we just discussed.

17 MR. SPOHRER: Okay. Why don't we  
18 take a break?

19 THE VIDEOGRAPHER: The time is 2:57,  
02:57 20 going off the record.

21 (Pause from 2:57 to 3:19 p.m.)

22 THE VIDEOGRAPHER: The time is 3:19,  
23 we're on the record.

24 (Phillips Exhibit No. 1 marked.)

03:19 25 Q. (BY MR. SPOHRER) Sir, we have attached as

03:19 1 Exhibit 1 to this deposition a copy of your  
2 handwritten notes which you have in front of you  
3 there. Where are these, please?

4 A. That would be this?

03:19 5 Q. Yes.

6 A. These three pages, this is separate, but  
7 the three pages were notes that I prepared sitting  
8 in a hotel room in New York on the occasion of my  
9 first visit to New York.

03:19 10 I had been asked by counsel to give a  
11 little 51 spiel on what is epidemiology, how it  
12 relates to drawing conclusions about the matter at  
13 hand, what my conclusions were based on my review of  
14 that literature and so forth.

03:20 15 Q. Okay. Who were you giving those remarks  
16 to?

17 A. It was a gentleman here, Mr. Bernardo,  
18 Mr. Kuhlman, Chris Cox from the Skadden firm. Peter  
19 McKenna from the Skadden firm. Someone from the  
03:20 20 general counsel's office at U.S.T., Beth somebody.  
21 I'm afraid I don't remember her last name. I think  
22 there were maybe one or two other people. I don't  
23 quite remember who they were.

24 Q. And how long did that meeting last?

03:20 25 A. That particular meeting with all of those

48  
03:20 1 individuals, I'm guessing an hour and a half. I'm  
2 not positive of that.  
3 Q. How many times have you been to New York  
4 on this case?  
03:20 5 A. Three.  
6 Q. They fly you out there first class each  
7 time?  
8 A. No, I flew coach each time.  
9 Q. Why?  
03:21 10 A. Pardon me?  
11 Q. Why?  
12 MR. BERNARDO: Objection to form.  
13 A. That's what I do.  
14 Q. (BY MR. SPOHRER) Hold out for first  
03:21 15 class. That's what Byers gets.  
16 MR. BERNARDO: Move to strike.  
17 Q. (BY MR. SPOHRER) Has anybody removed  
18 anything from your files, sir?  
19 MR. BERNARDO: Objection to form..  
03:21 20 A. The file has been here overnight. I  
21 couldn't tell you. I haven't looked through it this  
22 morning.  
23 Q. (BY MR. SPOHRER) But as of the time that  
24 you brought it here and went through it with  
03:21 25 counsel, nobody has said, let's take this out of



03:21 1 your file, or you haven't removed anything from your  
2 file?

3 MR. BERNARDO: Objection to form.

4 A. That's right.

03:21 5 Q. (BY MR. SPOHRER) Okay. Do you have any  
6 other -- any reports that you have written in this  
7 case?

8 A. No. There is the one report which was  
9 included in there, which I see has a sticker on it  
03:21 10 right there.

11 Q. On your analysis of the Winn?

12 A. Yes, I'm actually told that report is a  
13 term of art in your world and that that's not a  
14 report, but I don't quite know what that means.

03:22 15 Q. Is there any other writing that you have  
16 made to anyone in this case other than the  
17 handwritten notes which we are looking at here which  
18 is Exhibit 1, or this background and sample size is  
19 the title of this document which is Exhibit 2

20 (Phillips Exhibit No. 2 marked.)

21 A. That's right. And I should clarify that  
22 these handwritten notes were not distributed. They  
23 were notes I wrote for myself and read from.

24 Q. Okay.

03:22 25 A. There are other handwritten notes in

03:22 1 amongst my materials. Again, those were by me for  
2 me.

3 Q. We had asked that you bring certain  
4 materials to this deposition. Included are two  
03:22 5 articles that you wrote, one on screening  
6 mammography cost effectiveness analysis and one on  
7 extremely low birth weight survivors. Do you have  
8 those?

9 A. I should clarify those entries from my CV  
03:22 10 were pulled out of the section of my CV, which I  
11 call something along the lines of other  
12 collaborations in progress and I specifically noted  
13 in the heading for that those are collaborations  
14 that aren't represented by any of the working papers  
03:23 15 or other written material. Those are not papers but  
16 rather descriptions of ongoing discussions.

17 Q. Ongoing discussions with whom?

18 A. The -- could you remind me of what the two  
19 of the three are?

03:23 20 Q. The first is called "Screening Mammography  
21 Cost Effectiveness Analysis using SEER Medicare data  
22 with Begley et al."

23 MR. BERNARDO: Bob, if you wouldn't  
24 mind just giving him a copy of the CV just to refer  
03:23 25 to. Do you have --

03:23 1 A. I don't have my own copy.

2 MR. BERNARDO: There is one in the  
3 box.

4 Q. (BY MR. SPOHRER) There you go.

03:23 5 A. Yes. The entry that you are talking about  
6 to get the exact answer to my previous statement,  
7 these come from the category last on my CV, other  
8 ongoing projects and collaborations [excludes  
9 working papers and recent presentations/abstracts  
03:24 10 previously listed.]

11 The one in question, Chuck Begley is a  
12 colleague of mine, senior colleague of mine at the  
13 School of Public Health. He's the one who is  
14 running this collaboration. Others involved in it  
03:24 15 are Dave Larasen, Mike Swent, Willie Safrancini  
16 (sic), other colleagues at the School of Public  
17 Health.

18 Q. Is there any report or writing that has  
19 been developed by you or your colleagues with regard  
03:24 20 to that research?

21 A. No, not yet.

22 Q. The second one is extremely low birth  
23 weight survivors, life cycle cost utility analysis  
24 with Tyson et al. What is that?

03:25 25 A. Again, it's a collaboration in progress.

03:25 1 That one is at a much earlier stage at this point.  
2 John Tyson is a colleague of mine who is on the  
3 faculty at the U.T. medical school.

4 Q. Thank you. Go ahead.

03:25 5 A. He is a neonatologist along with several  
6 of his colleagues and we were discussing the  
7 possibility of, as you can see, doing a life cycle  
8 cost utility analysis. This discussion got  
9 temporarily set aside as we all became too busy and  
03:25 10 he and some of his colleagues put in a grant  
11 proposal for some of the more clinical side of it  
12 already and we're going to revisit what I have  
13 written here or we intend to revisit what I have  
14 written here in a few months when we're --

03:25 15 Q. Well, what have you written on that  
16 subject?

17 A. Nothing.

18 Q. Then the revisiting shouldn't take too  
19 long.

03:26 20 MR. BERNARDO: Objection to form.

21 Q. (BY MR. SPOHRER) You said you were going  
22 to revisit what you have written here. What -- have  
23 you done any --

24 A. By written, I mean what I have described  
03:26 25 in the CV, the phrase there, we're going to revisit

03:26 1 the project life cycle cost utility analysis.

2 That's what I meant when I said revisit.

3 Q. So I gather from that study as well there  
4 is no draft report or anything that has been  
03:26 5 prepared yet?

6 A. That's right.

7 Q. Okay. Do I understand from the title of  
8 that subject that the study is basically on  
9 determining the cost utility analysis of, well, you  
03:26 10 tell me. What does that, to a layman, what does  
11 that research involve?

12 A. Sure. As I said Dr. Tyson and his  
13 colleagues there are clinicians, faculty clinicians  
14 at the medical school. They work in neonatology,  
03:26 15 which is the clinical area of taking care of babies  
16 in distress most of which -- most of whom are low  
17 birth weight. Then there are specific technical  
18 terms, very low birth weight, extremely low birth  
19 weight, that describe particular weight ranges.

03:27 20 He is interested in -- he and his  
21 colleagues have long been interested in what happens  
22 to these kids or these people as they progress  
23 through childhood, assuming they survive. These are  
24 individuals who often, unfortunately, die in the  
03:27 25 hospital before they go home. But he's interested

03:27 1 in what happens to the ones who go home in terms of  
2 how their life is given that they very frequently  
3 have physical and mental handicaps as a result of  
4 their early life experience.

03:27 5 Q. And the goal is to assemble some data so  
6 that one can make a determination as to the -- as  
7 described here, the cost utility analysis of  
8 resuscitation?

03:28 9 A. Nothing about resuscitation specifically  
10 that the -- I should say that the clinical expertise  
11 in this case is not mine. That is, I don't -- I  
12 can't say exactly what these actions are that are  
13 taken in the NICU, the neonatal intensive care  
14 unit. I have never actually set foot there.

03:28 15 So I really can't characterize how they  
16 would describe it. We're talking, of course, about  
17 the care that they receive. And the questions arise  
18 in terms of some general points and some specifics.  
19 There are instances, again the clinical information  
03:28 20 is based on what they have told me, where there is a  
21 choice of two treatments or a choice of doing a  
22 treatment or not.

23 And it's a tradeoff because if they do the  
24 treatment they, for example, increase the chance of  
03:28 25 blindness but also increase the chance of survival.

03:29 1 That was a hypothetical. I'm not sure I can  
2 identify specific treatment that did that, but they  
3 face a lot of decisions like that.

4 And there is not nearly enough data about  
03:29 5 what the better choice would be, given what happens  
6 years out. And of course it's, you know, as you  
7 might guess, terribly distressing to be a clinician  
8 making these decisions and not having access to  
9 studies where you actually figure out the  
03:29 10 ramifications of your decision.

11 Q. All right. Thank you.

12 We have asked for presentations given by  
13 you at which you were present relating to the  
14 subject matter of your opinions in this case and I  
03:29 15 gather the answer is none?

16 A. Correct.

17 Q. You have done no independent research or  
18 research on this subject of the safety of spit  
19 tobacco other than when you have been commissioned  
03:29 20 to do by the United States Smokeless Tobacco  
21 Company?

22 MR. BERNARDO: Object to form.

23 A. I have done -- I have done the research  
24 that I described. I have not written my papers  
03:30 25 about it.

03:30 1 Q. (BY MR. SPOHRER) Let me be clear. In  
2 other words, prior to your engagement by U.S.  
3 Smokeless Tobacco Company's lawyers, you had no  
4 interest in this subject?

03:30 5 MR. BERNARDO: Object to form.

6 A. I wouldn't say I had no interest in it. I  
7 hadn't done research in it before.

8 Q. (BY MR. SPOHRER) Did you know what spit  
9 tobacco was before you were hired in this case?

03:30 10 MR. BERNARDO: Object to form.

11 A. I was aware of the existence of the  
12 smokeless tobacco products.

13 Q. (BY MR. SPOHRER) My point is simply, you  
14 didn't come to do this research because of  
03:30 15 intellectual curiosity. You are doing it because  
16 you were hired and given a specific project to work  
17 on by this company?

18 MR. BERNARDO: Object to form.

19 A. I find this topic to actually be  
03:30 20 intellectually fascinating, however, some of the  
21 work that -- some of the reading that I have done  
22 along the way you might choose to characterize as a  
23 pursuant of intellectual interest at that stage.

24 If the question is had I done any work on  
03:31 25 this before I was approached by counsel for U.S.T.,



03:31 1 the answer is no.

2 Q. (BY MR. SPOHRER) Okay. Have you  
3 submitted any bills for your work on this case?

4 A. Yes.

03:31 5 Q. Do you have those here today?

6 A. No.

7 Q. Where are they?

8 A. The actual bills that I submitted are in  
9 New York, presumably. I have the files, the  
03:31 10 computer files that I used to create them are on my  
11 computer.

12 Q. Okay. Would you send to me or through  
13 counsel to me a copy of any invoices or billing  
14 information that you have submitted on this case?

03:31 15 A. Sure.

16 MR. BERNARDO: I would object to that  
17 request, Bob, as being outside the scope of the  
18 rules, but we can talk about that.

19 MR. SPOHRER: It is subject of our  
03:32 20 request to produce.

21 MR. BERNARDO: That doesn't make it  
22 within the scope of the rules.

23 A. Let me clarify my last answer. If counsel  
24 instructs me to go ahead and do that, I will do it.

03:32 25 Q. (BY MR. SPOHRER) What percentage of your

03:32 1 income over the last 36 months has been derived from  
2 serving as an expert in litigation matters?

3 A. Something in the order of five percent or  
4 a bit more.

03:32 5 Q. Or a bit more? For a statistician that  
6 seems hopelessly vague to me. Can you give me a  
7 percentage --

8 MR. BERNARDO: Objection to form.

9 Q. -- of your income over the last 36 months  
03:32 10 by serving as an expert in litigation matters?

11 MR. BERNARDO: Objection to form.

12 A. If you want it to significant figures, I  
13 can sit here and calculate it, but --

14 Q. (BY MR. SPOHRER) It's just that your  
03:32 15 answer was pregnant with the possibility that it's  
16 quite a bit more than five percent.

17 MR. BERNARDO: Object to form.

18 Q. (BY MR. SPOHRER) But if you think it's  
19 five percent, you know give or take, then I'll take  
03:32 20 that as an answer.

21 A. It's five, maybe six, maybe seven, but I  
22 haven't --

23 Q. Five to seven percent?

24 A. I will accept that.

03:33 25 Q. Are there any litigation matters you have

03:33 1 worked on in the last 36 months other than this  
2 case?

3 A. 36 months. No, no, nothing litigation.

4 Q. Okay. What percentage of your income over  
03:33 5 the past year has been derived from serving as an  
6 expert in litigation matters?

7 A. 15 percent, 20, somewhere between 15 and  
8 20.

9 Q. Now, I think you told me earlier, sir,  
03:33 10 that you billed the company \$20,000 to date?

11 A. That was an approximation, yes.

12 Q. Okay. How much additional time is accrued  
13 but not yet billed?

14 MR. BERNARDO: Objection to form.

03:34 15 A. I haven't billed for -- I bill monthly. I  
16 haven't billed for the month of September. I  
17 haven't counted up the hours. I would guess that  
18 we'll be talking 50 hours for the month of  
19 September.

03:34 20 Q. (BY MR. SPOHRER) And how much are we  
21 talking about per hour?

22 A. 160.

23 Q. And is your time charged at 160 per hour  
24 for consulting, depositions and trial or is there a  
03:34 25 different scale?

03:34 1 A. For depositions and trial I charge twice  
2 that, 320.

3 Q. Okay. Exhibit 2 is your typewritten  
4 analysis of the Deborah Winn study. Is that  
5 correct?

6 A. That's correct.

7 Q. And how would you characterize what this  
8 is? Is it a critique or an analysis or what?

9 A. This is what I would call a reanalysis of  
03:35 10 the data which I suppose you could also simply call  
11 an analysis of the data.

12 Q. Okay. Can you give me your conclusion  
13 after reviewing her data?

14 A. I don't have a single conclusion, as you  
03:35 15 phrased it. I can tell you some of the things that  
16 I found when I analyzed it. One of the results  
17 which, whoops, I didn't number the pages. Apologies  
18 for that.

19 One of the results which can be found in  
03:35 20 the Table 2 variations is that when you look at  
21 Dr. Winn's data, this is the data from her  
22 dissertation and the New England Journal of Medicine  
23 article that she was the first author of in 1981,  
24 when you look at the data that produced those  
03:36 25 analyses of hers, specifically looking at tongue

03:36 1 cancer cases, you find a lack of association between  
2 that outcome and the exposure of using snuff.  
3 That's one conclusion that I have reached from this.

4 Q. Okay. Any others?

03:36 5 A. An additional conclusion captured in many  
6 of the later tables is that when reanalyzing her  
7 Table 3 from the New England journal article, her  
8 results are extremely unstable and that many  
9 different alternative ways of analyzing what she  
03:37 10 purported to be analyzing in Table 3 result in very  
11 different outcomes.

12 Q. All right. What do you conclude in  
13 reanalyzing her data with regard to the relative  
14 risk of oral cancer in general and the use of spit  
03:37 15 tobacco?

16 MR. BERNARDO: Objection to form.

17 A. For her data, it's possible to duplicate  
18 the analyses that she did in her original work as  
19 you might guess. And so basically, I was able to  
03:37 20 reproduce the same numbers that she published  
21 originally.

22 Q. (BY MR. SPOHRER) And then from what  
23 should we conclude about that?

24 A. I think you should conclude about the same  
03:38 25 thing that you would conclude from simply reading

03:38 1 her published work.

2 Q. Which is what in a nutshell with respect  
3 to the correlation between spit tobacco and oral  
4 cancer?

03:38 5 MR. BERNARDO: Objection to form.

6 A. Dr. Winn and her colleagues co-authoring  
7 with her reported an association between the  
8 exposure and the outcome for -- and it's important  
9 to note who it's for -- for a population of old  
03:38 10 women in mostly rural North Carolina using a dry  
11 snuff product for the most part and with certain  
12 other methodological limitations that probably stem  
13 from the 20-some year old understanding of  
14 epidemiology that was used in developing the  
03:39 15 analysis.

16 Q. I'm trying to understand. Do you conclude  
17 from reanalyzing her data that there is a  
18 correlation, an epidemiological correlation between  
19 the use of spit tobacco and oral cancer?

03:39 20 MR. BERNARDO: Object to form.

21 A. You don't reanalyze or analyze one data  
22 set and draw a conclusion. I don't know how you  
23 phrased that. It's not the way I would have phrased  
24 it, epidemiologic conclusion, but what I think you  
03:39 25 are getting at is the conclusion that an

03:39 1 epidemiologist would reach; and you simply don't  
2 draw a conclusion based on one particular data set  
3 outside the context of other available information.

4 Q. (BY MR. SPOHRER) Okay. So I'm trying to  
03:40 5 understand your areas of agreement and disagreement  
6 with Dr. Winn and I understand that you disagree  
7 with her conclusion with respect to the  
8 epidemiological connection between spit tobacco and  
9 tongue cancer.

03:40 10 MR. BERNARDO: Objection to form.

11 A. I'm not actually sure what her conclusion  
12 is on that matter. Her paper is about the numbers  
13 in her data and how they convert into statistics.

14 What you were just talking about was her  
03:40 15 opinion, and that is not necessarily the same thing.

16 Q. (BY MR. SPOHRER) Okay. Well, what is  
17 your opinion as to whether this data supports a  
18 connection between use of spit tobacco and oral  
19 cancer in general?

03:40 20 MR. BERNARDO: Same objection.

21 A. Again, I think it's important to not try  
22 to understand an isolated piece of the overall body  
23 of knowledge that exists. I'm not actually quite  
24 sure what it means to talk about what one particular  
03:41 25 collection of data means when one is aware of the

03:41 1 rest of the body of literature on the matter.

2 Q. (BY MR. SPOHRER) So you are saying you  
3 can't or you are unwilling to derive conclusions  
4 from this one study?

03:41 5 MR. BERNARDO: Objection to form.

6 A. I draw my conclusions from every study  
7 that I can get my hands on and so I guess that means  
8 that I don't draw conclusions from one study.

9 Q. (BY MR. SPOHRER) Okay. What is your  
03:41 10 opinion based on the Winn data as to any connection  
11 between use of spit tobacco and cancer of the oral  
12 cavity?

13 MR. BERNARDO: Objection to form.

14 A. Isn't that the same question?

03:42 15 Q. (BY MR. SPOHRER) Possibly.

16 A. Then I guess I have the same answer.

17 Q. Okay, which is?

18 A. Could we have it read back?

19 Q. She will read back the answer, but it's a  
03:42 20 different question, but go ahead. Let me do it this  
21 way.

22 A. Let me request that you clarify what's  
23 different about it, then I'll try to answer it then.

24 Q. Okay, fine. You reviewed Dr. Winn's  
03:42 25 original data?



03:42 1 A. Yes.

2 Q. Based upon your review of that data, have  
3 you arrived at any opinions or conclusions with  
4 respect to whether the use of spit tobacco is  
03:42 5 associated with oral cancer?

6 MR. BERNARDO: Objection to form.

7 A. I have arrived at a conclusion based on  
8 all of the material that you see in those boxes  
9 there, which includes this data and what I have done  
03:43 10 with it. Using of all that as inputs, I have  
11 arrived at the conclusion that this literature, this  
12 science of epidemiology does not support the  
13 conclusion that smokeless tobacco causes oral  
14 cancer.

03:43 15 Q. We're going to get you some coffee. Go  
16 ahead.

17 THE VIDEOGRAPHER: Off the record?

18 MR. SPOHRER: Yeah, please.

19 THE VIDEOGRAPHER: The time is 3:44,  
03:43 20 going off the record.

21 (Pause from 3:44 to 3:44 p.m.)

22 THE VIDEOGRAPHER: Time is 3:44 on  
23 the record.

24 Q. (BY MR. SPOHRER) We talked earlier about  
03:44 25 the Surgeon General's report and you talked about

03:44 1 the fact that that was data which is now 15 such,  
2 some years old.

3 What studies do you believe are  
4 authoritative in the epidemiological literature  
03:44 5 since the Surgeon General's study?

6 A. Well, again, I'm not quite sure what you  
7 mean by authoritative, but if it means definitive,  
8 if that's what you mean by that, then no single  
9 study is that. No single study provides the  
03:44 10 answer. Again, it comes back to the entire body of  
11 evidence.

12 There are several very useful studies in  
13 that literature that are -- that provide more  
14 information than other studies do. I won't call  
03:45 15 them definitive.

16 Q. Okay. Well, which ones do you think are  
17 the most helpful?

18 A. The most helpful studies in that  
19 literature, I believe, are the two coming out of  
03:45 20 Sweden, first authors Lewin and Schildt.

21 Q. Any others?

22 A. Those are the two that provide the best  
23 information because of having samples, good sample  
24 size, good methods, a sufficient contrast of  
03:45 25 exposure levels and so forth.

03:45 1

Q. Okay.

2

A. That summarized the statistical power  
sometimes.

3

4

Q. Lewin and Schildt, that's one study?

03:45 5

A. No, I'm sorry. There were two different  
studies: Lewin et al, Schildt et al.

6

7

Q. Okay. Both Swedish studies?

8

A. That's correct.

9

03:46 10

Q. And they are reporting on the use of  
Swedish snuff?

11

A. Yes.

12

Q. Did they use Skoal or Copenhagen in their  
studies?

13

14

03:46 15

A. Not to my knowledge. I don't know the  
extent to which the American products are consumed  
in Sweden.

16

17

Q. Do you know what the differences are  
between Swedish snuff and American spit tobacco?

18

19

MR. BERNARDO: Objection to form.

03:46 20

A. I mean I'm not a product engineer or  
chemist. I couldn't tell you too much about that.

21

22

Q. (BY MR. SPOHRER) Who provided you with  
the Swedish studies?

23

24

03:46 25

A. They were part of the collection of  
epidemiologic studies, as far as I have been able to

03:46 1 confirm, all epidemiologic studies on the top  
2 provided to me by counsel from Skadden.

3 Q. So the two studies which you find to be  
4 most helpful in the recent literature are Swedish  
03:47 5 studies which were given to you by lawyers for U.S.  
6 Tobacco, but you are unable to tell me whether or  
7 not the products tested in those studies are similar  
8 to the products in question in this case?

9 MR. BERNARDO: Objection to form.

03:47 10 A. I don't think I actually said that.

11 Q. (BY MR. SPOHRER) I'm asking you. How  
12 does the Swedish snuff in the Lewin and Schildt  
13 reports compare with Skoal and Copenhagen?

14 A. Again, a detailed analysis is -- falls  
03:47 15 into other people's expertise, not mine. I know  
16 that they are both moist snuff products and that  
17 contrasts with, say, chewing tobacco or dry snuff.

18 Q. You are comparing apples and motorcycles.

19 MR. BERNARDO: Objection to form.

03:47 20 Q. (BY MR. SPOHRER) I'm talking about two  
21 moist products, one made in Sweden, one made in the  
22 United States. You are saying the two most helpful  
23 studies are studies of products made and consumed in  
24 another country. Is that part of the scientific  
03:48 25 method which you believe is a good approach to this

03:48 1 analysis?

2 MR. BERNARDO: Objection to form.

3 A. I'm not quite sure what you think my  
4 opinion about the scientific method is since I  
03:48 5 haven't said anything about that. These are good  
6 studies. They provide useful information.

7 Q. (BY MR. SPOHRER) About a different  
8 product than what we are dealing with here, yes?

9 MR. BERNARDO: Objection to form.

03:48 10 A. I don't have independent knowledge that  
11 would cause me -- I don't have knowledge that would  
12 cause me to conclude that it's a different product..

13 Q. (BY MR. SPOHRER) What knowledge do you  
14 have to conclude that it's the same product?

03:48 15 MR. BERNARDO: Objection to form.

16 Q. (BY MR. SPOHRER) I mean have these  
17 lawyers told you to assume it's the same product?

18 MR. BERNARDO: Objection to form.

19 Bob, to use your words, that's beyond the pale.  
03:49 20 It's beyond the pale, Bob, and you know it.

21 Q. (BY MR. SPOHRER) I'm asking for what is  
22 the basis of your assumption that the, quote,  
23 Swedish studies are based on a comparable product?  
24 Do you have any information on that subject?

03:49 25 A. I wouldn't characterize my conclusion as

03:49 1 an assumption. These -- the information that I have  
2 says that it's a comparable product.

3 I observe that they are both moist snuff  
4 products. I observe that -- going back to your  
03:49 5 previous question about tobacco specific  
6 nitrosamines that if that is what people think is  
7 the carcinogenic agent, to use the toxicology terms,  
8 if that's what people think it is, then there are  
9 comparable levels of those chemicals in the Swedish  
03:50 10 product as experienced by the subjects in those  
11 studies compared to modern American product.

12 In terms of other aspects of the chemical  
13 composition, I couldn't tell you much about that.

14 Q. When you say I observe this and I observe  
03:50 15 that, what do you mean "I observe"?

16 A. Sorry. There is a small literature out  
17 there that reports what the content in terms of  
18 tobacco specific nitrosamines is for different snuff  
19 products. And I have looked at that and it shows  
03:50 20 that the amounts contained in the Swedish product  
21 during the exposure period for the Lewin and Schildt  
22 study populations, the amount in the Swedish product  
23 is comparable to the amount in the American product  
24 right now.

03:51 25 Q. Okay. So is it correct that you have no

03:51 1 personal knowledge on the composition of these  
2 various products, but for the purposes of your  
3 analysis here, you are assuming that the Swedish  
4 studies are based on a product which is comparable  
03:51 5 or similar to the American product?

6 MR. BERNARDO: Objection to form.

7 A. If by personal knowledge you mean have I  
8 ever done a chemical analysis or anything like that,  
9 no, that's not what I do. I'm not assuming, again.

03:51 10 The information that I have been able to  
11 find that those who think that there is a problem  
12 with this product emphasize as being the relevant  
13 chemical constituents. The information that I have  
14 been able to find about those shows that it is  
03:52 15 comparable.

16 Q. (BY MR. SPOHRER) Other than the Lewin and  
17 Schildt studies, are there any others which you  
18 found helpful since 1986?

19 A. I found many of the studies contribute to  
03:52 20 my knowledge; that is, I reviewed them all. They  
21 all are part of my understanding of what my science  
22 has to say about this matter. I single out those  
23 two because they provide the most useful information  
24 because of the statistical characteristics.

03:52 25 Q. Let me hand you your copy of a document

03:53 1 you had in your file. We have attached a copy of  
2 this as Exhibit 3 to the deposition. You all have  
3 one there. What is this, sir?

4 (Phillips Exhibit No. 3 marked.)

03:53 5 A. This is a photocopy of a pamphlet that my  
6 dentist, my personal dentist pulled out of her file  
7 when I asked her what she knew about smokeless  
8 tobacco, snuff in particular, and what types of  
9 things that she and her colleagues to the extent she  
03:53 10 knew said about it.

11 Q. Um-hmm. Your dentist is Diana Smith?

12 A. That's right.

13 Q. And did you have a discussion with her  
14 about smokeless tobacco?

03:53 15 A. Yes.

16 Q. What did she say about it?

17 A. I asked her about -- again, I said I was  
18 curious as to if she had any material or anything  
19 that she distributed.

03:54 20 She said she, in fact, didn't have  
21 anything she was distributing but had a copy of this  
22 in her file and was able to make a copy of it for  
23 me. I mentioned to her that I was doing a project  
24 on it and, you know, I was curious what she knew  
03:54 25 about it, what she thought about it.



03:54 1 I was surprised to find that she was a  
2 little hesitant in her answer because I assumed that  
3 she thought, because I was someone at the School of  
4 Public Health, which is usually concerned in trying  
03:54 5 to change people's behavior and so forth, she  
6 offered the information that she didn't think that  
7 there was much of a health problem. That she had  
8 recently gone to a presentation at the Medical  
9 Center. She works at the Texas Medical Center. And  
03:54 10 found out that the best information available was  
11 that basically that the information contained in  
12 this pamphlet was, in fact, misleading.

13 She was surprised, I think, to find that I  
14 agreed with her because this was at the point when I  
03:55 15 had done the research that I described.

16 Q. Okay. You saw this as from the American  
17 Cancer Society?

18 A. Yes.

19 Q. And that they report that there is an  
03:55 20 increased incidence of oral cancer for people that  
21 use snuff?

22 A. Where are we looking?

23 Q. I'm looking at the last page. "Snuff is  
24 not a safe alternative to smoking. It contains 10  
03:55 25 times the amount of nitrosamines, the same cancer

03:55 1 causing substance found in cigarettes."

2 Do you disagree with that assertion from  
3 the American Cancer Society?

4 A. I really don't have any basis to either  
03:55 5 agree or disagree with their chemical analysis.

6 Q. Well, do you have any reason to believe  
7 that the American Cancer Society is incapable of  
8 calculating the amount of nitrosamines or cancer  
9 causing substances found in cigarettes and in spit  
03:56 10 tobacco?

11 MR. BERNARDO: Objection to form.

12 A. I actually don't even know that they did  
13 any calculations themselves. There are no  
14 footnotes, no discussion of methods in this paper.

03:56 15 Q. (BY MR. SPOHRER) The next paragraph says,  
16 More than 87 percent of oral cancers are directly  
17 linked to smokeless tobacco and cigarette use. Do  
18 you agree or disagree with that statement?

19 A. It's a little difficult for me to  
03:56 20 understand what they're basing that on and exactly  
21 what they mean. That's not really in the language  
22 of science or epidemiology. I find it -- it's an  
23 imprecise enough statement that it's difficult to  
24 agree or disagree with.

03:56 25 Q. Of course, this isn't written for

03:56 1 epidemiologists. It's written for people to pick up  
2 in their dental office. Right?

3 MR. BERNARDO: Objection to form.

4 Q. (BY MR. SPOHRER) So what about the  
03:57 5 statement is difficult for you to understand: "More  
6 than 87 percent of oral cancer cases are directly  
7 linked to smokeless tobacco and cigarette use"?

8 A. The statement "directly linked" doesn't  
9 clearly translate into any scientific claim as far  
03:57 10 as I can tell. So I don't know what they mean.

11 Q. Well, what if they were to say "caused  
12 by"?

13 A. I would know what that meant.

14 Q. Would you agree or disagree?

03:57 15 A. The best numbers, well, first off, whether  
16 I agreed or disagreed, the first thing I would point  
17 out is that it is an incredibly misleading  
18 statement, "are directly linked to smokeless tobacco  
19 and cigarette use." If you are talking --

03:57 20 Q. You said you didn't like the words  
21 "directly linked" so I've changed that to cause.  
22 Now you are going back to the other.

23 A. I will accept the change. If you said --  
24 if you made the statement, if someone were to make  
03:58 25 the statement, dah-dah-dah-dah-dah were caused by,

03:58 1 then put those two things in there, it basically  
2 amounts to nonsense.

3 The conclusions that they are trying to  
4 draw here are about smokeless tobacco. Why would  
03:58 5 you make a statement about the conjunction smoking  
6 and smokeless tobacco? So I guess the smokeless  
7 tobacco and cigarette use more precisely is what  
8 they said.

9 So to start out with I would say anyone  
03:58 10 making that statement is a little bit confused about  
11 what it is that they are trying to claim. It's not  
12 clear whether they are talking about smokeless  
13 tobacco, cigarettes, some combination of the two and  
14 so forth.

03:58 15 In terms of whether I agree with the  
16 amended statement, which I believe you said was more  
17 than 87 percent of oral cancer cases are caused by  
18 smokeless tobacco and cigarette use, my reading of  
19 the epidemiology literature more generally on the  
03:59 20 causes of oral cancer, which is not something I have  
21 studied every word of but that I have obviously read  
22 some of in the course of this, the numbers that  
23 people like Fraumeni like to present are that 75  
24 percent of all cases are caused by smoking and  
03:59 25 alcohol consumption.

03:59 1 If 75 percent are attributable to smoking  
2 and alcohol consumption, it seems very unlikely that  
3 87 percent are attributable to smoking and smokeless  
4 tobacco.

03:59 5 So based on that implicit calculation, I  
6 would have to say that I find that statement  
7 unlikely. But again, I don't know what they are  
8 basing it on. I was talking about this hypothetical  
9 rewriting of it. When they say "directly linked," I  
04:00 10 don't know what they mean. And so I'm not actually  
11 commenting on the statement as written here in this  
12 document.

13 Q. Okay. Dr. Byers, who was sitting in that  
14 chair a few hours ago, said that it was his opinion  
04:00 15 that 95 percent plus of oral cancers are related to  
16 tobacco use.

17 MR. BERNARDO: Objection to form.

18 Q. (BY MR. SPOHRER) Do you disagree with  
19 that statement?

04:00 20 A. I really don't know exactly what he was  
21 saying, what the context was. It's a little  
22 difficult to make sense of that out of context.

23 Q. It's generally accepted among head and  
24 neck surgeons that 90 to 95 percent of oral cancers  
04:00 25 are related to tobacco use.

04:00 1 MR. BERNARDO: Objection to form.

2 Q. (BY MR. SPOHRER) Do you have an opinion  
3 on that?

4 MR. BERNARDO: Same objection.

04:00 5 A. I don't know what's generally accepted by  
6 head and neck surgeons.

7 Q. (BY MR. SPOHRER) Which of the studies  
8 from 1986 forward have you rejected as being  
9 unreliable?

04:01 10 MR. BERNARDO: Objection as to form.

11 Q. (BY MR. SPOHRER) Let me just put this in  
12 context. We talked about the ones you felt most  
13 helpful and you said there were others that you  
14 considered for part of your general reading on the  
04:01 15 subject, but were there some that you rejected as  
16 being inherently unreliable?

17 MR. BERNARDO: Objection as to form.

18 A. There is no dichotomy of reliable,  
19 unreliable, helpful, unhelpful. It's simply a  
04:01 20 matter of degree how helpful.

21 Q. (BY MR. SPOHRER) So they are all helpful  
22 in some sense, some more than others?

23 A. They all were part of what I tried to read  
24 and understand in order to form my opinions so in  
04:01 25 that sense they all helped me in forming my opinion.

04:01 1 Q. All right. Why don't we take a break for  
2 a few moments and I'll pull some of those studies  
3 that we want to talk with you about, then we'll get  
4 back to this.

04:02 5 THE VIDEOGRAPHER: Time is 4:02 going  
6 off the record.

7 (Pause from 4:02 to 4:26 p.m.)

8 THE VIDEOGRAPHER: Time is 4:26,  
9 we're on the record.

04:26 10 Q. (BY MR. SPOHRER) Doctor, we spoke a  
11 little bit earlier about your vegetarianism and that  
12 there are health issues with regard to that and I  
13 gather you try to lead a healthy life style as much  
14 as you can. Is that true?

04:26 15 A. I wouldn't brag that I'm the -- lead the  
16 healthiest life style in the world; more healthy  
17 than some.

18 Q. Would you agree irrespective of the  
19 statistical issues and epidemiological issues that  
04:26 20 we're dealing with here today that just as a matter  
21 of general health, it would be good for all of us to  
22 avoid tobacco use, if possible?

23 MR. BERNARDO: Objection to form.

24 A. I think the only way that you could draw a  
04:26 25 conclusion one way or another on that statement is

04:26 1 with those very bits of information that you asked  
2 me to disregard so I'm not sure where I can base  
3 that statement on.

4 Q. (BY MR. SPOHRER) My last question didn't  
04:26 5 ask you to disregard anything. I'm just asking  
6 whether as a matter of general good health, all of  
7 us should avoid tobacco products, if possible?

8 MR. BERNARDO: Objection to form.

9 A. Well, it's important to distinguish  
04:27 10 tobacco products. I brought this up previously when  
11 we were talking about that pamphlet.

12 Cigarettes and smokeless tobacco are very  
13 different things. The epidemiology on them has  
14 shown very different results. And so I think that  
04:27 15 any statement about tobacco as a collective concept  
16 that includes both of those is likely to be  
17 misleading.

18 Q. (BY MR. SPOHRER) Okay. So you think that  
19 those of us that consume tobacco by using it as oral  
04:27 20 tobacco are better off than those who smoke  
21 tobacco?

22 MR. BERNARDO: Objection to form.

23 A. Smoking by oral --

24 Q. (BY MR. SPOHRER) Strike that.

04:28 25 A. I'm having a trouble with a distinction



04:28 1 with oral.

2 Q. By consuming tobacco, you think it's  
3 better that we use it as an oral tobacco rather than  
4 a smoking tobacco?

04:28 5 MR. BERNARDO: Objection to form.

6 A. You mean smokeless tobacco. Smoking is an  
7 oral delivery system too.

8 Q. (BY MR. SPOHRER) Dipping and chewing is  
9 preferable to smoking if one is going to consume  
04:28 10 tobacco. Is that what you are saying?

11 A. There is strong evidence, one of the  
12 strongest bodies of evidence in health science, that  
13 smoking causes various diseases at rates that are  
14 very much worth being concerned about. So I would  
04:29 15 always advise somebody if they were concerned about  
16 their health to not smoke.

17 In terms of dipping, before I tried to  
18 offer generic advice on this point, I think we  
19 discussed this actually with regard to a  
04:29 20 hypothetical 18 year old version of my girlfriend's  
21 son, before I tried to form an opinion on the health  
22 effects of smokeless tobacco in general, I would  
23 want to broaden the research that I did.

24 Q. Okay. You are spending a considerable  
04:29 25 amount of your professional time on this case, are

04:29 1 you not?

2 MR. BERNARDO: Objection to form.

3 A. I don't know what you regard to be  
4 considerable amount of time.

04:29 5 Q. (BY MR. SPOHRER) Well, 50 hours in the  
6 month of September and September is not even over.  
7 This is the 26th. Would you agree that's a  
8 considerable amount of your professional time?

9 MR. BERNARDO: Same objection.

04:30 10 A. I don't know if I have a definition of  
11 considerable, a considerable amount of my time. We  
12 know how many hours it is. We can just work with  
13 that.

14 Q. (BY MR. SPOHRER) Are you spending a lot  
04:30 15 of time on this case?

16 A. Same idea. I spent, as I said, 50 hours  
17 so far this month. I've spent roughly a hundred  
18 hours before that. I spent more time than that on  
19 other things and less time than that on other  
04:30 20 things. You have the exact numbers. I'm not sure  
21 why you need it to be described as considerable or  
22 not.

23 Q. Based on the 150-plus hours that you have  
24 spent on this project, are you planning on  
04:30 25 publishing your results?

04:30 1 A. I haven't formed any specific plans about  
2 that one way or the other.

3 Q. Okay. Has U.S. Tobacco or its attorneys  
4 asked you to publish on the subject?

04:31 5 A. Mo.

6 Q. Before you were contacted with regard to  
7 this case, had you done any work for any tobacco  
8 company or any of its related trade groups?

9 MR. BERNARDO: Objection to form.

04:31 10 A. I -- related trade groups, I'm not sure  
11 who you mean. The tobacco companies have --  
12 cigarette companies have merged with a lot of other  
13 companies. I have done work in enough different  
14 places that I might have -- my work might have  
04:31 15 overlapped that of, say, Kraft Foods which was or is  
16 part of a cigarette company. So I'm not quite sure  
17 how broad you are asking when you are talking about  
18 related trade groups.

19 Q. (BY MR. SPOHRER) What I mean is related  
04:31 20 trade groups such as the Smokeless Tobacco Research  
21 Council, the Smokeless Tobacco Council, the Tobacco  
22 Institute or any similar trade group?

23 A. I have had no interaction with any of  
24 those groups.

04:32 25 Q. You have read the deposition of Dr. Scott

04:32 1 Tomar in this case?

2 A. No, I actually haven't read it. It was  
3 given to me and I simply haven't had time to read  
4 that particular document.

04:32 5 Q. Did you read the deposition of Kelli  
6 McMullin?

7 A. Yes.

8 Q. Did you read the deposition of Michael  
9 McMullin?

04:32 10 A. Yes.

11 Q. Is there anything else that you were given  
12 that you did not read besides the Tomar deposition?

13 A. There is a huge stack of papers in one of  
14 those boxes that is associated with the Winn data  
04:32 15 that was given to me at the same time that I  
16 received the data itself. It includes hundreds of  
17 pages of computer runs and statistical output from  
18 that. I have only sampled the total contents of  
19 that material.

04:33 20 Q. Okay. All right. We're going to attach  
21 some documents to this deposition, Doctor, and I  
22 just want to make sure that we're -- I will give  
23 your attorneys a copy as well. This first document  
24 which I will mark as Exhibit 4 is a chapter on  
04:33 25 epidemiology. What is this from?

(Phillips Exhibit No. 4 marked.)

04:33 1 A. This is a chapter by Deborah Winn, excuse  
2 me, in an NCI monograph, National Cancer Institute,  
3 published roughly 1992. The entire document is  
4 sitting there and I could give you a better idea of  
5 the further details about it.  
6

7 Q. Okay. Now Deborah Winn is the scientist  
8 who did the original, what we referred to as the  
9 Winn study?

04:34 10 A. That's right.

11 Q. She's with the National Cancer Institute?

12 A. She was at the time she wrote this. I  
13 don't know exactly where her career has taken her  
14 since then.

04:34 15 Q. Do you know anything about her competence  
16 or her ability to do epidemiological work?

17 A. Nothing more than knowing about her degree  
18 and about what jobs she's held.

19 Q. Well, the methodology of her studies, do  
04:34 20 you have any quarrel with that?

21 A. Her study was conducted in ways that I  
22 certainly wouldn't have chosen to analyze things.

23 Q. Okay. This chapter, you read this chapter  
24 from the NCI monograph?

04:34 25 A. Yes.

04:34 1 Q. Okay. Dr. Winn reports in the abstract  
2 that epidemiological studies of smokeless tobacco  
3 and cancer continue to show that smokeless tobacco  
4 increases oral cancer risk and possibly the risk of  
04:35 5 other head and neck cancers, suggesting a continuing  
6 need to monitor oral cancer trends and to  
7 communicate health risks to the public.

8 Do you agree or disagree with that  
9 statement from her that smokeless tobacco increases  
04:35 10 oral cancer risk?

11 MR. BERNARDO: Objection to form.

12 A. My reading of the epidemiologic literature  
13 sitting here in 2002, which gives me some advantages  
14 that she didn't have when she wrote that, is that  
04:35 15 this literature does not show that smokeless tobacco  
16 causes oral cancer

17 (Phillips Exhibit No. 5 marked.)

18 Q. Okay. Let me show you what I am marking  
19 as Exhibit 5, which is the next document which  
04:36 20 appears to be a page from the World Health  
21 Organization International Agency for Research on  
22 Cancer, publication No. 100 in 1990.

23 A. Yes.

24 Q. Why is this in your materials?

04:36 25 A. Let me take a look at it.

04:36 1 I believe this was from early in my  
2 research on this topic in which -- I don't know  
3 whether I gathered this or my research assistant  
4 did. It probably was her and I asked her to just  
04:37 5 gather any useful background information on the  
6 topic.

7 (Phillips Exhibit No. 6 marked.)

8 Q. Okay. The next article which I am  
9 labeling as No. 6 is an editorial from the Journal  
04:37 10 of Internal Medicine, "Snuff - How dangerous is it?  
11 The controversy continues" dated 2001. What was the  
12 significance of this in your research?

13 A. Again, I believe I gathered this or my --  
14 I gathered this early in our research in the  
04:37 15 interest of getting the best general background idea  
16 of what the discussion in the literature was.

17 Q. Well, did you consider this article?

18 A. What do you mean, did I consider it?

19 Q. Did you review the article and consider  
04:38 20 its contents?

21 A. I have read it. I have not read it for  
22 quite sometime so I forget exactly what it says.

23 Q. Look at page 4. I'm sorry, four --

24 A. It starts on 457.

04:38 25 Q. 459, I guess it is. "Is Swedish snuff

04:38 1 different?" Do you see that?

2 A. Yes.

3 Q. Do you see in that paragraph the author is  
4 discussing how the process of manufacturing Swedish  
04:38 5 snuff is very different from how it is done in the  
6 United States?

7 A. The document says -- the document says,  
8 "In the United States, snuff production involves a  
9 fermentation process, whereas Swedish snuff is  
04:39 10 nowadays prepared by heating process without  
11 traditionally smoke-drying, yielding a semisterile  
12 product with a lower content of polycyclic aromatic  
13 hydrocarbons than previously."

14 Then there is a citation No. 24 on that  
04:39 15 which is to Ahlbom Olsson et al, 1997.

16 Q. I actually did not ask you to read the  
17 paragraph. I asked you to consider the fact that  
18 the author says that there is a difference in the  
19 way Swedish and American products are made?

04:39 20 A. I'm not sure what you mean by, did I  
21 consider it? I read it. I was aware of it.

22 Q. A few moments ago you were telling me that  
23 the data from the Swedish studies were the most  
24 helpful that you could find and we discussed whether  
04:40 25 or not it's the same product or not. In your file



04:40 1 you have this data which apparently is from a  
2 Swedish researcher who states that the whole process  
3 of manufacturing snuff in Sweden is different from  
4 the process of making it in the United States?

04:40 5 MR. BERNARDO: Objection to form.

6 A. I don't know if it says that the whole  
7 process is different. It made that distinction that  
8 it was there. I'm aware of there being differences  
9 with this.

04:40 10 Q. (BY MR. SPOHRER) Are you as a scientist  
11 at all concerned that you have been asked by U.S.  
12 Tobacco to consider equating a very different  
13 product from theirs with regard to the health risks  
14 involved?

04:40 15 MR. BERNARDO: Objection as to form.

16 A. U.S. Tobacco or counsel did not suggest in  
17 any way how I should conduct my scientific review or  
18 draw conclusions. They said no such thing.

19 Q. (BY MR. SPOHRER) What is the basis on  
04:41 20 which you are saying that the Swedish studies  
21 involving Swedish snus or snuff is comparable to  
22 Skoal and Copenhagen?

23 A. There is a literature that attempts to  
24 explore whether there is a difference, in particular  
04:41 25 with regard to those chemicals tobacco specific

04:41 1 nitrosamines between Swedish product and American  
2 product because the toxicologists who are interested  
3 in the implications of those chemicals would  
4 naturally be concerned about that.

04:41 5 As a result, there is a literature that  
6 enables me to conclude that the quantity of those  
7 chemicals is comparable and, therefore, draw  
8 conclusions about the similarities of the products.

9 Q. So this paper which is now Exhibit 6 to  
04:42 10 your file or to this deposition, you reject this  
11 author's statement about how different the processes  
12 are in making the two products?

13 MR. BERNARDO: Object to form.

14 A. I didn't say anything about the processes  
04:42 15 for making the products.

16 Q. (BY MR. SPOHRER) Let me show you Exhibit  
17 7 which is -- put this on the back, Elaine --  
18 another document in your file which is an editorial  
19 to the Journal of the American Medical Association.  
04:42 20 Are you familiar with that publication?

21 (Phillips Exhibit No. 7 marked.)

22 A. I think this is a letter, yes, I'm  
23 certainly familiar with it.

24 Q. Yes, a letter. A letter to the editor.  
04:42 25 And JAMA, is that an authoritative medical source?

04:43 1 A. It is a respected journal.

2 Q. These authors from the Medical College of  
3 Georgia in Augusta are writing to the editor on  
4 teenage chewing tobacco use. Did you consider this  
04:43 5 letter to the editor in arriving at your opinions?

6 A. I'm reviewing it because it's something I  
7 haven't read in a while and would have to remind  
8 myself of the content.

9 Q. Well, turn to the middle column, the  
04:43 10 second to last paragraph, "It has been well  
11 documented that there is an increased risk of oral  
12 and pharyngeal carcinomas in users of smokeless  
13 tobacco." You see that?

14 A. That statement is footnoted to Winn and  
04:43 15 some sort of, something called the Council on  
16 Scientific Affairs, also or published in 1986. I  
17 see the statement.

18 Q. Well, it's actually footnoted to Winn, to  
19 her study, to Blot, and others in the New England  
04:44 20 Journal of Medicine and then the Council on  
21 Scientific Affairs of JAMA.

22 MR. BERNARDO: Objection to form.

23 A. I'm not sure what the question is. But  
24 the footnote is to Winn, Blot, Shy, et al. That is  
04:44 25 what's typically called the Winn study. The New

04:44 1 England Journal of Medicine article, Winn is the  
2 first author of several.

3 The second one, yes, something called the  
4 Council on Scientific Affairs, health effects of  
04:44 5 smokeless tobacco. It was published in JAMA. That  
6 doesn't mean it was a statement by JAMA or editorial  
7 or anything like this. I don't know what that is.

8 Q. (BY MR. SPOHRER) But you disagree with  
9 it?

04:44 10 MR. BERNARDO: Objection as to form.

11 A. If the statement is the Winn study has  
12 been used to make the claim that there is an  
13 increased risk, we all know that's true.

14 When this was published in 1986, that was  
04:45 15 the single thing that people tended to look to as  
16 far as I could tell from the literature.

17 As I said, I reach -- I have reached my  
18 conclusion based on the information available in  
19 2002 and so I have many other sources to work from  
04:45 20 other than just that one.

21 Q. (BY MR. SPOHRER) How is it that  
22 epidemiologists look at the same data that you look  
23 at and that you arrive at a different conclusion as  
24 to the health effects of smokeless tobacco?

04:45 25 MR. BERNARDO: Objection as to form.

04:45 1 / A. I'm not sure who you are talking about,  
2 what they said.

3 Q. (BY MR. SPOHRER) Well, I'm talking about  
4 the group we just mentioned, the Journal of the  
04:46 5 American Medical Association, Council on Scientific  
6 Affairs. I'm talking about the World Health  
7 Organization. I'm talking about the International  
8 Agency for Research on Cancer. I'm talking about  
9 the American Cancer Society. I'm talking about  
04:46 10 every recognized medical or scientific organization  
11 throughout the world that has looked at the same  
12 data that you have looked at and concluded that the  
13 use of spit tobacco poses an increased risk of oral  
14 cancer.

04:46 15 Can you explain to me, sir, how it is that  
16 you look at the same data that they do and arrive at  
17 a completely different conclusion?

18 MR. BERNARDO: Objection as to form.

19 A. I really don't know what data all of those  
04:46 20 individuals that you are talking about have looked  
21 at and I don't know all of the conclusions that they  
22 have reached. So I really have no idea.

23 Q. (BY MR. SPOHRER) Are you concerned that  
24 you stand alone among epidemiologists in the world  
04:47 25 with respect to your opinion that the use of spit

04:47 1 tobacco does not pose an increased risk of oral  
2 cancer?

3 MR. BERNARDO: Objection as to form.

4 A. I'm not under the impressions that I stand  
04:47 5 alone on the opinion that the epidemiologic  
6 literature does not show a relationship between  
7 smokeless tobacco and oral cancer.

8 Q. (BY MR. SPOHRER) The next document No. 8  
9 is a consensus conference, sir, from the National  
04:47 10 Institutes of Health on the health applications of  
11 smokeless tobacco dated 1986. What was the  
12 significance of this in your studies?

13 (Phillips Exhibit No. 8 marked.)

14 MR. BERNARDO: Objection as to form.

04:48 15 A. It's in the collection of material I  
16 reviewed, again because of my interest in  
17 understanding what -- as much as possible about what  
18 the literature said about the topic.

19 Q. (BY MR. SPOHRER) Do you know what  
04:48 20 polonium 210 is?

21 MR. BERNARDO: Objection as to form.

22 A. It's a isotope of an element.

23 Q. (BY MR. SPOHRER) Okay. It's a  
24 radioactive alpha emitter, isn't it, sir?

04:48 25 MR. BERNARDO: Objection as to form.

04:48 1 A. My nuclear physics is far, far and distant  
2 in my background. I don't know whether -- I don't  
3 know anything more other than recognizing it as an  
4 isotope of an element.

04:48 5 Q. (BY MR. SPOHRER) Polonium 210 is a known  
6 radiation carcinogen, isn't it?

7 MR. BERNARDO: Objection as to form.

8 A. I don't have any substantial knowledge  
9 about that assertion one way or the other.

04:49 10 Q. (BY MR. SPOHRER) You don't know whether a  
11 radioactive alpha emitter is a cancer causing  
12 substance?

13 MR. BERNARDO: Objection as to form.

14 Bob, it's getting late in the day if you are going  
04:49 15 to ask him the same question multiple times just to  
16 see if he changes his answer. We're going to be  
17 here all night.

18 But go ahead and answer it again.

19 A. I don't know anything much other than I  
04:49 20 said about polonium 210.

21 Q. (BY MR. SPOHRER) How about formaldehyde,  
22 is that something that's good for people?

23 MR. BERNARDO: Objection as to form.

24 A. I'm not sure what you mean by "good for  
04:50 25 people."

04:50 1 Q. (BY MR. SPOHRER) Is it good for people to  
2 consume formaldehyde or products containing  
3 formaldehyde?

4 MR. BERNARDO: Objection as to form.

04:50 5 A. I would have to know more about the  
6 individual product before I could form an opinion  
7 about that.

8 Q. (BY MR. SPOHRER) You would have to know  
9 more about formaldehyde to know whether or not --

04:50 10 MR. BERNARDO: Objection. Bob, if  
11 you want to ask him a question, you can do it. You  
12 don't need to lean into him and start getting really  
13 aggressive with him. I have been really patient as  
14 you have been asking a lot of these questions and  
04:50 15 I'm trying to be reasonable here. But if you want  
16 to ask him a question and discover information, do  
17 that, but let's do it in a reasonable way here.

18 Q. (BY MR. SPOHRER) What else do you need to  
19 know about formaldehyde to know whether or not it  
04:50 20 was good for people to consume it?

21 MR. BERNARDO: Object as to form.

22 A. I don't think I could list everything that  
23 I would want to know in order to form that  
24 conclusion.

04:50 25 Q. (BY MR. SPOHRER) I don't think you could



04:50 1 either. Do you need to know anything other than the  
2 fact that formaldehyde is a poison?

3 MR. BERNARDO: Object to form.

4 A. I'm not sure what you mean by formaldehyde  
04:50 5 is a poison.

6 Q. (BY MR. SPOHRER) Well, you think about  
7 that because we'll be hearing that again in court.

8 MR. BERNARDO: Move to strike that  
9 last comment

10 (Phillips Exhibit No. 9 marked.)

11 Q. (BY MR. SPOHRER) I have marked as Exhibit  
12 9 the next article in your file which is called "The  
13 Reemergence of Smokeless Tobacco." This is a  
14 special article in the New England Journal of  
04:51 15 Medicine which was in your file. Did you consider  
16 this article, sir, in arriving at your opinions?

17 A. I have read this article. It's -- and my  
18 opinions are based on everything that I've had an  
19 opportunity to read.

04:51 20 Q. Did you reject the conclusions of these  
21 authors that smokeless tobacco is an addictive  
22 poison?

23 MR. BERNARDO: Objection as to form.

24 A. Could you tell me where they say that?

04:51 25 Q. (BY MR. SPOHRER) Well, that's my

04:51 1 paraphrasing of it, but it is concluded by the  
2 authors that the epidemiological evidence  
3 establishes that the use of smokeless tobacco is a  
4 carcinogen and that the nicotine in the product is  
04:51 5 an addictive substance.

6 MR. BERNARDO: Objection as to form.

7 A. I'm not sure where it says that in this  
8 article. Do you have a paragraph -- you look like  
9 you are reading from something.

04:52 10 Q. (BY MR. SPOHRER) I just have the copy of  
11 the article.

12 A. Right. But I wasn't sure where you were  
13 reading those phrases that you just presented.

14 Q. Okay. Reading from the abstract, "The use  
04:52 15 of smokeless tobacco has been shown to cause oral  
16 pharyngeal cancer." You see that, sir?

17 A. Yes.

18 Q. Okay.

19 MR. BERNARDO: Where are you reading  
20 from?

21 MR. SPOHRER: I'm reading from the  
22 abstract about midway down the first paragraph.

23 Q. (BY MR. SPOHRER) Do you reject that  
24 finding by these authors?

04:52 25 A. I have already mentioned, note the date on

04:52 1 this paper. It's 1986. I have already mentioned  
2 that when I formed my opinion based on the quality  
3 of the science and the total body of evidence  
4 available here and now, I was able -- I had  
04:52 5 advantages that people reading the literature in  
6 1986 didn't have and so to describe it as agreement,  
7 disagreement, rejection really isn't a fair  
8 characterization. I similarly had the opportunity  
9 to base my conclusion on a different set of  
04:53 10 information.

11 (Phillips Exhibit No. 10 marked.)

12 Q. All right, sir. The next article I have  
13 handed you from your file is called "Incidence and  
14 Predictors of Smokeless Tobacco Use among U.S.  
04:53 15 Youth" by Scott Tomar. He's the gentleman whose  
16 deposition was given to you but you have not read.  
17 Do you know Dr. Tomar professionally?

18 A. No.

19 Q. Have you considered this article and this  
04:53 20 study in your arriving at your opinions?

21 A. I still don't know exactly what you meant  
22 by "considered". I believe I have read this,  
23 although not terribly recently. And my opinion is  
24 based on the totality of what I have read, what I  
04:54 25 have analyzed and so on.

04:54 1 Q. Okay. Then lastly, sir, we have I think  
2 the two articles which you said you found most  
3 helpful and this one has your notes on it. Is that  
4 the Schildt article that you were referring to?

04:54 5 A. You just handed me the two articles, the  
6 Schildt et al and the Lewin et al epidemiologic  
7 studies.

8 Q. Let's mark them separately, sir, as  
9 Exhibits 11 and 12. These are the two articles that  
04:54 10 you were referring to as the most helpful?

11 (Phillips Exhibit Nos. 11 & 12 marked.)

12 MR. BERNARDO: Objection as to form.

13 A. I forgot exactly how I described them.  
14 These are the two recent epidemiologic studies of  
04:54 15 the association in question that have the most  
16 useful collection of information because of having  
17 sufficient sample size and other characteristics.

18 Q. (BY MR. SPOHRER) Okay. Have you any work  
19 remaining to do between now and the time that you  
04:55 20 testify?

21 MR. BERNARDO: Could you be more  
22 specific?

23 A. You mean do more specific research on --

24 Q. (BY MR. SPOHRER) Yeah. Do you have work  
04:55 25 yet undone that you have been asked to do or that

04:55 1 you want to do for this case?

2 A. There is no work that I have been asked to  
3 do that I haven't done yet. There is no further  
4 research that I have in mind that I think needs to  
04:55 5 be done in preparing my expert testimony.

6 Q. Okay. Have you been asked to assist in  
7 preparing exhibits for the trial?

8 A. I was asked to provide the, well, not data  
9 but say low level statistics for use in exhibits for  
04:55 10 the trial and I have provided some such information,  
11 yes.

12 Q. What do you mean, low level statistics?

13 A. Sorry. I started to say data. Data is  
14 not quite the right word. Data refers to the raw  
04:56 15 inputs, simple summary statistics, sort of the next  
16 level of aggregation. Instead of looking at each  
17 individual data record, you say, okay, there are  
18 five of these and 10 of these. That's the form of  
19 the information that I've provided for this  
04:56 20 particular application.

21 Q. I'm sorry, I'm still lost. Tell me what  
22 you have given these lawyers and how it would appear  
23 if we had it in front of us. And by the way, why  
24 isn't it here in front of us?

04:56 25 MR. BERNARDO: Objection to form.

04:56 1 It's not, Bob?

2 Q. (BY MR. SPOHRER) Maybe it is. Can you  
3 direct me to it? Is it in one of these boxes?

4 A. There are -- well, I believe there are in  
04:56 5 those boxes several printouts which are outputs from  
6 SEER data, SEER being the roughly nationwide cancer  
7 registry collection that is usually considered the  
8 best source of cancer incidence and mortality data.  
9 I did several runs from that data to produce some  
04:57 10 information for, as I understood, for purposes  
11 creating exhibits. I forget what you call them. I  
12 think it's there. I put it in my collection of  
13 papers.

14 MR. SPOHRER: Okay. We would like to  
04:57 15 pause and let the Doctor identify that for me,  
16 please, and --

17 MR. BERNARDO: Can we go off the  
18 record?

19 MR. SPOHRER: Yeah, let's take a  
04:57 20 break and do that.

21 THE VIDEOGRAPHER: Time is 4:58,  
22 going off the record.

23 (Pause from 4:58 to 5:00 p.m.)

24 THE VIDEOGRAPHER: Time is 5:00,  
05:00 25 we're on the record.

05:00 1 Q. (BY MR. SPOHRER) Doctor, you've had a  
2 chance to look through the materials. Is that data  
3 that you were just referring to here?

4 A. There are three pieces of it. Two of them  
05:00 5 are here as we discussed during the break. I have  
6 the other on disks. We had a miscommunication about  
7 who was going to put a copy of it in the box. I can  
8 print it out and provide that to you here today.

9 Q. Okay. And what -- what is the source of  
05:00 10 this information?

11 A. This is from the SEER registry data.

12 Q. On what subject?

13 A. On, generally on the rates of oral -- the  
14 incidence rate of oral cancer broken down by age,  
05:01 15 year, sex, and race. Then more specifically tongue  
16 cancer broken down the same way.

17 And the third one, which I said I will  
18 provide to you but is not printed out at the moment,  
19 is on what in the SEER data is a catch-all that  
05:01 20 basically includes gum and buccal cancer, although  
21 it apparently possibly includes, I believe, roof of  
22 the mouth or one other site.

23 Q. Okay. And these are from the National  
24 Surveillance Reporting Service?

05:01 25 A. Yes. SEER is a federation, if you will,

05:01 1 of several cancer registries across the country and  
2 it's considered the best cancer registry information  
3 available.

4 Q. Does the SEER data correlate for tobacco  
05:02 5 usage?

6 MR. BERNARDO: Objection to the  
7 form.

8 A. I don't understand.

9 Q. (BY MR. SPOHRER) Does it have a column  
05:02 10 for the number of people who are using tobacco?

11 A. Oh, no, there is no information about  
12 tobacco.

13 Q. And it's your belief that this data is  
14 going to be converted into some type of an exhibit  
05:02 15 for the trial?

16 MR. BERNARDO: Objection to the  
17 form.

18 A. I don't have any belief about whether it  
19 is or is not. I created these reports in the  
05:02 20 context of a discussion about possible exhibits that  
21 would be created for the trial. I don't know what  
22 counsel is going to choose to do with it.

23 Q. What other exhibits have you suggested be  
24 created to assess in your opinions?

05:02 25 MR. BERNARDO: Object to form.



05:02 1 A. I don't recall that I suggested this  
2 exhibit. This was --

3 Q. (BY MR. SPOHRER) Regardless --

4 A. I don't --

05:02 5 Q. Regardless of who originated the  
6 suggestion --

7 A. Okay.

8 Q. -- have you participated in discussions of  
9 any other exhibits to illuminate your testimony?

05:03 10 MR. BERNARDO: Objection to the  
11 form.

12 A. I'm not aware of any other specific  
13 exhibit other than the one related to this data.

14 MR. SPOHRER: All right. I have no  
05:03 15 further questions, Doctor. Thanks. You have the  
16 right to read this or you may waive it and they may  
17 want to advise you on that.

18 MR. BERNARDO: We advised her that we  
19 are going to reserve our right to read and sign.

05:03 20 THE VIDEOGRAPHER: Time is 5:04,  
21 we're off the record.

22 (Concluded at 5:04 p.m.)  
23  
24  
25

CHANGES and SIGNATURE DEPOSITION of  
CARL PHILLIPS, Ph.D.

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CARL PHILLIPS, Ph.D.

1  
2 I, CARL PHILLIPS, Ph.D., have read the foregoing  
3 deposition and hereby affix my signature that same  
4 is true and correct, except as noted above.  
5

6 -----  
CARL PHILLIPS, Ph.D.  
7

8  
9 THE STATE OF TEXAS)

10 COUNTY OF HARRIS)

11 Before me, \_\_\_\_\_, on  
12 this day personally appeared CARL PHILLIPS, Ph.D.,  
13 known to me or proved to me under oath or through  
14 \_\_\_\_\_ to be the person  
whose name is subscribed to the foregoing instrument  
and acknowledged to me that they executed the same  
for the purposes and consideration therein  
expressed.

15 Given under my hand and seal of office  
16 this \_\_\_\_\_ day of \_\_\_\_\_, 2002.  
17

18 -----  
NOTARY PUBLIC IN AND FOR  
19 THE STATE OF TEXAS

20 My Commission Expires: \_\_\_\_\_  
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THE STATE OF TEXAS :

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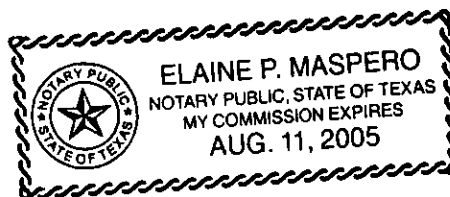
I, Elaine P. Maspero, RPR, Certified Shorthand Reporter and Notary Public in and for the State of Texas, hereby certify that this deposition transcript is a true record of the testimony given by the witness, CARL PHILLIPS, Ph.D., after said witness was duly sworn or affirmed by me.

I further certify that I am neither attorney nor counsel for, related to, nor employed by any of the parties to the action in which this testimony was taken. Further, I am not a relative or employee of any attorney of record in this case, nor do I have a financial interest in the action.

Certified to on this 29th day of September, 2002.

*Elaine P. Maspero*

Elaine P. Maspero, CSR #320  
Notary Public in and for  
The State of T e x a s  
Certification expires 12-31-02  
Commission expires 8-11-05



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